INDEX TO VOLUME XLIII

Adirondacks, anorthosites of the (F. F. Grout and W. W. Longley), 133, 138

Adler, Joseph L. *Stratigraphic zones in the Negaunee iron formation of Marquette County, Mich.*, 113

African granitoid rocks, the compositions of some (F. F. Grout), 281

Age of the Glenarm series in southeastern Pa., the problem of the Martic overthrust and the (J. H. Mackin), 356

of Gulf border salt deposits. By Levi S. Brown. Review by D. C. Barton, 329

of Nashville dome (C. W. Wilson), 477

relative, of Sierra Nevada intrusions (E. B. Mayo), 687

Airways of America, Guidebook No. 1, The United Air Lines. By A. K. Lobeck. Review by E. L. Tullis, 332

Alaska, alpine glaciation in (R. Tuck), 530

minor features of glaciers in (L. L. Ray), 297

Albion group of Central Basin, Tenn. (C. W. Wilson), 454, 479

Algonkian, Belt series in Mont. (C. M. Langton), 31

Allagecrinus americanus Rowley, growth stages of (R. E. Peck), 765

Allanite in Front Range granites (M. F. Boos), 1044

Allegheny eroision surface (W. S. Cole), 1054, 1056, 1058, 1060

Allen, John A., and Ralph L. Rutherford. Geology of Central Alberta. Review by E. C. Olson, 335

Alling, H. L. Cited on origin of Adirondack anorthosites (F. F. Grout and W. W. Longley), 140

Alluvium in Colorado Plateau (R. W. Bailey), 340

unassorted, permeability of (H. J. Fraser), 996

Alpine glacial erosion, asymmetrical topography in high latitudes resulting from (R. Tuck), 530

Alteration of Gwalior trap, India (M. P. Bajpai), 69

of sudburite (R. Thomson), 433

Alumina, relation to bases, in classification of igneous rocks (S. J. Shand), 615

Americanus Rowley, Allagecrinus, growth stages of (R. E. Peck), 765

Amsden formation (H. W. Scott), 1013, 1019, 1020

Analysis, thin-section mechanical, of indurated sediments (W. C. Krumbein), 482

Anderson, Alfred L. *The valley of Grimes Creek in the Payette Canyon, Idaho*, 618

Anderson, George H., and John H. Maxson. *Terminology of surface forms of the erosion cycle*, 88

Anderson, T., and J. S. Flett. Cited on *nuées ardentes* (R. H. Finch), 546

Andesite-porphyries of Lindsley Bay area (C. Riley), 502

Anoplotheca hemispherica (J. T. Sanford), 172, 174

Anorthosite, relations of, to granite (F. F. Grout and W. W. Longley), 133

Anticline, Mine Ridge, Pa. (J. H. Mackin), 361, 363

Nashville, pre-Chattanooga development of (C. W. Wilson), 449

Apatite in Front Range granites (M. F. Boos), 1042

Apophyses of Lindsley Bay granite-porphyry (C. Riley), 519

Appalachia in relation to Nashville dome (C. W. Wilson), 464

Appalachian Highlands, erosion surfaces of (W. S. Cole), 1061

physiography of Maine (F. W. Toppan), 76

Piedmont, granite pedestal rocks in the southern (G. W. Crickmay), 745

Apparatus for classifying quartz particles (H. Wadell), 252

for measuring permeability (H. J. Fraser), 947

Arid cycle of erosion (J. H. Maxson and G. H. Anderson), 91
matureland (J. H. Maxson and G. H. Anderson), 93
oldland (J. H. Maxson and G. H. Anderson), 94
youngland (J. H. Maxson and G. H. Anderson), 93
Ariplain, in arid erosion cycle (J. H. Maxson and G. H. Anderson), 96
Arizona, stream fluting in Grand Canyon (J. H. Maxson and I. Campbell), 729
Arkansas River valley, the upper, and the Royal Gorge, Colorado, physiographic history of (W. E. Powers), 184
Arkell, W. J. The Jurassic System in Great Britain. Review by C. L. Cooper, 220
Arnheim formation, Tenn. (C. W. Wilson), 455
Aroostook Valley, Maine (F. W. Toppan), 78
Assimilation in Idaho batholith (C. M. Langton), 42
Asymmetrical topography in high latitudes resulting from alpine glacial erosion (R. Tuck), 530
Athy, L. F. Cited on porosity of sediments (H. J. Fraser), 945, 946
Atolls, the foundations of: A discussion (J. E. Hoffmeister and H. S. Ladd), 653
Atwood, Wallace W., Jr. *The glacial history of an extinct volcano, Crater Lake National Park*, 142
Austin, A. C., and M. Mercer. The story of diamonds. Review by R. T. Chamberlin, 670
Autoliths in Sierra Nevada intrusions (E. B. Mayo), 682
Axial-plain foliation (H. W. Fairbairn), 592

Bailey, Reed W. *Epicycles of erosion in the valleys of the Colorado Plateau Province*, 337
Bajpai, M. P. *The Gwalior trap from Gwalior, India*, 61
Balk, R. Cited on anorthosites of the Adirondacks (F. F. Grout and W. W. Longley), 139, 140
Baltischen Länder, die (Estland, Lettland und Litauen). By L. Rüger. Review by R. T. Chamberlin, 446
Barlow, W. Cited on packing of spheres (L. C. Graton and H. J. Fraser), 789
Barth, T. F. W. Cited on origin of anorthosite (F. F. Grout and W. W. Longley), 139
Barton, Donald. Review of Age of Gulf border salt deposits. By L. S. Brown, 329
Review of Fluid mechanics of salt domes. By L. L. Nettleton, 221
Basalt, Gwalior, India (M. P. Bajpai), 69
Bascom, F. Cited on age of Wissahickon schist (J. H. Mackin), 368
Cited on Martic overthrust (J. H. Mackin), 366
Bases, ratio to alumina, in classification of igneous rocks (S. J. Shand), 615
Basin-range faulting of 1915 in Pleasant Valley, Nevada (B. M. Page), 690
province, erosion cycle in (J. H. Maxson and G. H. Anderson), 92
Basins, elliptical lake, "Carolina Bays" and (W. F. Prouty), 200
in Kentucky karst landscape (S. N. Dicken), 716, 721, 723
Bassler, R. S. Cited on history of Nashville dome (C. W. Wilson), 474
and E. O. Ulrich. Cited on "Clinton" of western New York (J. T. Sanford), 175, 176, 178, 179, 180, 181, 182
Batholith, Cripple Creek, heavy minerals in (M. F. Boos), 1039
Idaho, geology of northeastern part of, and vicinity in Mont. (C. M. Langton), 27
Indian Creek, heavy minerals in (M. F. Boos), 1039
Log Cabin, heavy minerals in (M. F. Boos), 1040
Longs Peak–St. Vrain, heavy minerals in (M. F. Boos), 1039
Mount Evans, heavy minerals in (M. F. Boos), 1034
Pikes Peak (J. T. Stark), 5
heavy minerals in (M. Boos), F. 1034
Princeton (J. T. Stark), 4
Sherman, heavy minerals in (M. F. Boos), 1034
Sierra Nevada, Mother Lode and (E. Cloos), 225
Silver Plume (J. T. Stark), 5
heavy minerals in (M. F. Boos), 1034

"Bays, Carolina," and elliptical lake basins (W. F. Prouty), 200
Beach sands, porosity of (H. J. Fraser), 939, 942
Beaches, raised, in Great Bear Lake (C. Riley), 497
Bears, two fossil grizzly, from the Pleistocene of Oklahoma (J. W. Stovall and C. S. Johnston), 208
Becker, G. F. Cited on rock foliation (H. W. Fairbairn), 593
Beckwith, R. H. Contributions to the geology of northern Mongolia. Review by E. C. Olson, 1083
Bedding foliation (H. W. Fairbairn), 592
in Negaunee iron formation (J. L. Adler), 121
Behre, C. H., Jr. Review of Metamorphism: A study of the transformations of rock masses. By Alfred Harker, 1080
Cited on correlation of benches and terraces in upper Arkansas valley (W. E. Powers), 187, 194
Beiträge zur Untersuchung der isostatischen Kompensation der Schweizerischen Gebirgsmassen. By Mariette Lehner. Review by W. D. Lambert, 105
Belt series, Mont. (C. M. Langton), 31
Benches and pediments of upper Arkansas valley (W. E. Powers), 193
Berg, G. A. Review of Dip and strike problems: Mathematically surveyed. By Kenneth W. Earle, 1082
Beryl in Front Range granites (M. F. Boos), 1047
Bidwell-Arnoldsburg section, physiography of (W. S. Cole), 1050
Big Horn formation (G. M. Kay), 589
Big Snowy group (H. W. Scott), 1023
Bigby limestone, Tenn. (C. W. Wilson), 456
Biotite in Front Range granites (M. F. Boos), 1046
Bitterroot fault, Mont. (C. M. Langton), 40, 52, 54
Range, Mont. (C. M. Langton), 27, 29, 37, 46, 52
Valley, Mont. (C. M. Langton), 29, 53
Black Hills, the Deadwood formation (G. M. Schwartz), 525
Black River group in Central Basin, Tenn. (C. W. Wilson), 456, 470
Blackwelder, E. Cited on erosion in arid climates (J. H. Maxson and G. H. Anderson), 94
Blueberry district, Mich. (J. L. Adler), 120
Bodenschätze, die, des Staates Minas Geraes, Brazilien. By B. von Freyberg. Review by R. T. Chamberlin, 445
Body in packing of spheres, definition of (L. C. Graton and H. J. Fraser), 792
Boise River, drainage pattern of (A. L. Anderson), 622
Boos, Margaret Fuller. *Some heavy minerals of the Front Range granites*, 1033
Born, A. Der geologische Aufbau der Erde. Handbuch der Geophysik, Vol. II. Review by A. C. Noé, 108
Über Werden und Zerfall von Kontinentalschollen. Review by A. C. Noé, 109
Bornite in Cornwall mines, Mo. (G. W. Rust), 413
Boulder Creek batholith, heavy minerals in (M. F. Boos), 1034
Dam, silting of (R. W. Bailey), 338
Boulders, etched erratic, a call for information concerning (W. H. Hobbs), 551
fluting of (J. H. Maxson and I. Campbell), 730
residual, in Appalachian Piedmont (G. W. Crickmay), 752
Bowen, N. L. Cited on origin of anorthosite (F. F. Grout and W. W. Longley), 138
Bradley, F. H. Cited on exploration of Teton Range (F. Fryxell), 384
Branson, E. B., M. G. Mehl, and E. R. Branson. Conodont studies. Review by C. L. Cooper, 443
Brassfield limestone, Tenn. (C. W. Wilson), 454
Breakage of glacial débris (L. L. Ray), 315
Breccia in Powell formation (G. W. Rust), 401
Brewer Dock member of Reynales formation (J. T. Sanford), 179
Broggi, J. A. *Preliminary note on a physical phenomenon resembling mountain-building*, 1067
Brown, Levi S. Age of Gulf border salt deposits. Review by D. Barton, 329

Brüggen, J. Grundzüge der Geologie und Lagerstättenkunde Chiles. Review by E. C. Olson, 331

Bryan, Kirk. Review of Geography and geology of the region including Cape Cod, the Elizabeth Islands, Nantucket, Marthas Vineyard, No Mans Land and Block Island (Massachusetts). By J. B. Woodworth and E. Wigglesworth, 667
Cited on erosion in arid climates (J. H. Maxson and G. H. Anderson), 92, 95
Cited on origin of pedestal rocks (G. W. Crickmay), 754

Bryce Canyon, Utah, erosion of (R. W. Bailey), 347

Buddington, A. F. Cited on origin of anorthosite (F. F. Grout and W. W. Longley), 139

Bulletin de la Commission Géologique de Finland 103. Review by G. Rittenhouse, 333

Burch, E. P., C. R. Stauffer, and G. M. Schwartz. *A reinterpretation of the Stillwater deepwell records*, 630

Calaveras formation (E. Cloos), 228

Calcite in Cornwall mines, Mo. (G. W. Rust), 413

Caldera of Mount Mazama (W. W. Atwood, Jr.), 142, 146

California, ice caves in northern (C. R. Swartzlow), 440
intrusions in Sierra Nevada (E. B. Mayo), 673
Mother Lode district (E. Cloos), 225

Call for information concerning etched erratic boulders (W. H. Hobbs), 551

Cambrian, Deadwood formation (G. M. Schwartz), 525
Hasmark formation in Mont. (C. M. Langton), 34
-Trias sequence of northwestern Kashmir. By D. N. Wadia. Review by R. T. Chamberlin, 671

Cambro-Ordovician rocks of southeastern Pa. (J. H. Mackin), 357, 359, 363

Campbell, Ian, and John H. Maxson. *Stream fluting and stream erosion*, 729

Canada, Northwest Territories, the granite-porphyries of Great Bear Lake (C. Riley), 497

Cannon limestone, Tenn. (C. W. Wilson), 456, 470

Cannon, R. S. Cited on origin of migmatites (J. T. Stark), 23

Cape Cod, glaciation of (R. F. Flint), 772

Capillary phenomena in packed spheres (L. C. Graton and J. H. Fraser), 904

Carboniferous, Calaveras formation (E. Cloos), 228
stratigraphy, some, in Mont. and northwestern Wy. (H. W. Scott), 1011

"Carolina bays" and elliptical lake basins (W. F. Prouty), 200

Carte géotechnique de la Suisse. Review by R. T. Chamberlin, 222

Carters limestone, Tenn. (C. W. Wilson), 457, 470

Catheys formation, Tenn. (C. W. Wilson), 456, 470

Caves, ice, in northern Calif. (C. R. Swartzlow), 440

Cementation a factor in permeability of sediments (H. J. Fraser), 997

Central India, Gwalior trap of (M. P. Bajpai), 61
massif of Sierra Nevada (E. B. Mayo), 676
Texas wells that filled with water (W. Kramer), 644
Uplands, Maine (F. W. Toppan), 77, 81

Chadwick, G. H. Cited on "Clinton" of western New York (J. T. Sanford), 170, 173, 175, 176, 179, 180, 181, 182

Chalcocite in Cornwall mines, Mo. (G. W. Rust), 413

Chalcopyrite in Cornwall mines, Mo. (G. W. Rust), 412

Chamberlin, R. T. Review of Die Baltischen Länder (Estland, Lettland und Litauen). By Ludwig Rüger, 446
Review of Die Bodenschätze des Staates Minas Geraes, Brazilien. By B. von Freyberg, 445
Review of The Cambrian-Trias sequence of northwestern Kashmir. By D. N. Wadia, 671
Review of Carte géotechnique de la Suisse, 222
Review of Geologic structures. By Bailey Willis and Robin Willis, 553
Review of The Geology and ore deposits of Sierra County, New Mexico. By G. T. Harley, 110

Review of Geology of Vitilevu, Fiji. By H. S. Ladd, 781
Review of Gravity. By E. A. Glennie, 1084
Review of Guide to the geological model of Ardnamurchan. By J. E. Richey, 222
Review of Introduction aux études minières coloniales, 669
Review of Minya Gongkar, Forschungereise ins Hochgebirge von Chinesisch Tibet. By A. Heim, 446
Review of Les ressources minèrales de la France d'outre Mer, 222
Review of Sobre la presencia de restos de la flora de "Glossopteris" en las Sierras Australes de Buenos Aires. By H. Harrington, 668
Review of The story of diamonds. By A. C. Austin and M. Mercer, 670
Cited on structure of Rocky Mountains (C. M. Langton), 45
Chance packing of spheres (L. C. Graton and H. J. Fraser), 828, 846, 879
Changing world of the ice age, the. By R. A. Daly. Review by Paul MacClintock, 555
Channelways in packing of spheres (L. C. Graton and H. J. Fraser), 851
Chaotic packing of spheres (L. C. Graton and H. J. Fraser), 827
Chattanooga shale, Tenn. (C. W. Wilson), 453, 481
Chazyan series in Central Basin, Tenn. (C. W. Wilson), 457
Chemical characters of Gwalior trap, India (M. P. Bajpai), 69
Chert in Negaunee iron formation (J. L. Adler), 120, 124, 127, 129
in Powell formation, Mo. (G. W. Rust), 400
Chester series in Ky. (S. N. Dicken), 710
Valley, Pa., geology of (J. H. Mackin), 358
Chickies quartzite (J. H. Mackin), 357, 359
Chouteau formation (R. E. Peck), 766
Cincinnati arch, Nashville dome an extension of (C. W. Wilson), 457
Cincinnatian series of Central Basin, Tenn. (C. W. Wilson), 455, 478
Clapp, C. H. Cited on structure of Idaho batholith and vicinity, Mont. (C. M. Langton), 27, 50
Clark, Bruce L. Review of Tertiary faunas. By A. Morley Davies, 107
Clarke, J. M. Cited in origin of striae in Portage rocks (B. Willard), 218
Classification, mineralogical, of igneous rocks: A comparison of recent proposals (S. J. Shand), 609
of quartz particles (H. Wadell), 251
Clastic sediments, experimental study of the porosity and permeability of (H. J. Fraser), 910
Clay, porosity and permeability of (H. J. Fraser), 944, 946, 995
Cleavage in the Calaveras formation (E. Cloos), 231
Climate, Devonian, in Pa. (B. Willard), 219
Climatic changes as cause of erosion in Colorado Plateau (R. W. Bailey), 346
Clinton group in Central Basin, Tenn. (C. W. Wilson), 454, 479
the, in western New York (J. T. Sanford), 169
Cloos, Ernst. *Mother Lode and Sierra Nevada batholith*, 225
Review of Um das Geologische Weltbild. By E. Haarmann, 783
Cloos, H. Cited on granite tectonics (C. M. Langton), 57
Coastal Lowlands, Maine (F. W. Toppan), 77, 80
pahoehoe lavas, pits in, controlled by gas bubbles (H. S. Palmer and H. A. Powers), 639
Coatesville-West Chester district, Pa. (J. H. Mackin), 367
Cockeysville marble (J. H. Mackin), 357, 371, 372
Coelospira hemispherica (Sowerby) (J. T. Sanford), 172, 174
Cole, G. N., and C. F. Brooks. Cited on *nuées ardentes* (R. H. Finch), 548
Cole, W. Storrs. *Rock resistance and peneplain expression*, 1049
Coleman, A. P. Cited on sudburite (R. Thomson), 427, 229
Collingwood formation (G. M. Kay), 582
Colloform structure in copper ores (G. W. Rust), 404
Colloidal primary copper ores at Cornwall mines, southeastern Mo. (G. W. Rust), 398

Colony in packing of spheres (L. C. Graton and H. J. Fraser), 828
Color index, in classification of igneous rocks (S. J. Shand), 610
Colorado, migmatites of the Sawatch Range (J. T. Stark), 1
physiographic history of the upper Arkansas River valley and the Royal Gorge (W. E. Powers), 184
Plateau Province, epicycles of erosion in the valleys of the (R. W. Bailey), 337
River, stream fluting in (J. H. Maxson and I. Campbell), 729, 734
Compaction of sediments (H. J. Fraser), 941, 997
Comparison of recent proposals, the mineralogical classification of igneous rocks (S. J. Shand), 609
Complete cell in packing of spheres (L. C. Graton and H. J. Fraser), 798
Composition of feldspar in classification of igneous rocks (S. J. Shand), 614
the, of some African granitoid rocks (F. F. Grout), 281
Concave-cube in packing of spheres (L. C. Graton and H. J. Fraser), 812
Concave-tetrahedron in packing of spheres (L. C. Graton and H. J. Fraser), 811
Concretions in Negaunee iron formation (J. L. Adler), 124, 128
Conodont studies. By E. B. Branson, M. G. Mehl, and E. R. Branson. Review by C. L. Cooper, 443
Consolidation a factor in permeability of sediments (H. J. Fraser), 996
Contact phases of the Lindsley Bay granite-prophyry (C. Riley), 509
Contacts of the Sierra Nevada intrusions (E. B. Mayo), 681
Container walls in packing of spheres (L. C. Graton and H. J. Fraser), 839, 887; (H. J. Fraser), 925
Contributions to the geology of northern Mongolia. By R. H. Beckwith. Review by E. C. Olson, 1083
Cooper, Chalmer L. Review of Conodont studies. By E. B. Branson, M. G. Mehl, and E. R. Branson, 443
Review of The Jurassic System in Great Britain. By W. J. Arkell, 220
Copper ores, colloidal primary, at Cornwall mines, southeastern Mo. (G. W. Rust), 398
Corals in atolls (J. E. Hoffmeister and H. S. Ladd), 653
Corning Creek zone of Negaunee iron formation (J. L. Adler), 129
Cornish, Vaughan. Ocean waves and kindred geophysical phenomena. Review by E. C. Olson, 332
Cornwall mines, southeastern Mo., colloidal copper ores at (G. W. Rust), 398
Correlation of Dubuque formation (G. M. Kay), 580
of Stewartville formation (G. M. Kay), 578
Cotter dolomite in Mo. (G. W. Rust), 399
Covellite in Cornwall mines, Mo. (G. W. Rust), 414
Crater Lake National Park, the glacial history of an extinct volcano (W. W. Atwood, Jr.), 142
Creep, structure and (N. H. Stearn), 323
Crescent streamline depressions (L. L. Ray), 307
Cretaceous, as age of Idaho batholith (C. M. Langton), 45, 56
Crickmay, Geoffrey W. *Granite pedestal rocks in the southern Appalachian Piedmont*, 745
Crinoids, growth stages of (R. E. Peck), 765
Cripple Creek batholith, heavy minerals in (M. F. Boos), 1039
Criteria for colloidal deposition of ores (G. W. Rust), 403, 425
Critical permeability in sediments (H. J. Fraser), 1009
ratio of grain-size in packing of spheres (H. J. Fraser), 919
Crosbyton, Tex., gravity survey at (A. J. Hoskinson), 436
Cubic packing of spheres (L. C. Graton and H. J. Fraser), 801
Cycle, erosion, terminology of surface forms of the (J. H. Maxson and G. H. Anderson), 88
Cypress sandstone, Ky. (S. N. Dicken), 540, 710, 718

Daly, Reginald A. The changing world of the ice age. Review by Paul MacClintock, 555
Cited on interior of earth (J. S. De Lury), 760
Darcy, H. Cited on permeability of sediments (H. J. Fraser), 950

David White (T. W. Stanton), 778
Davies, A. Morley. Tertiary faunas. Review by B. L. Clark, 107
Davis, W. M. Cited on the origin of atolls (J. E. Hoffmeister and H. S. Ladd), 653
Cited on terminology of erosion cycle (J. H. Maxson and G. H. Anderson), 88, 90, 94
Deadwood formation (G. M. Schwartz), 524
Débris-covered ice cones (L. L. Ray), 319
Deductions, geologic, from earthquakes of deep focus (J. S. De Lury), 759
Deecke-Festschrift. By W. Deecke. Review by A. C. Noé, 109
Deep-well records, a reinterpretation of the Stillwater (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 630
De Lury, J. S. *Geologic deductions from earthquakes of deep focus*, 759
Depauperate zone of Maquoketa formation (G. M. Kay), 563, 573
Dependent perched boulders (L. L. Ray), 312
Deposition, effect of method of, on porosity and permeability of sediments (H. J. Fraser), 938, 977
of ores at Cornwall mines, Mo. (G. W. Rust), 416
Desert dome, in arid erosion cycle (J. H. Maxson and G. H. Anderson), 94
Deutsches Erdöl. By A. Moos, H. Steinbrecher, and O. Stutzer. Review by E. L. Tullis, 1081
Development, the pre-Chattanooga, of the Nashville dome (C. W. Wilson), 449
Devonian rocks of Central Basin, Tenn. (C. W. Wilson), 453, 480
ice in Pa. (B. Willard), 214
Diastrophism as cause of erosion in Colorado Plateau (R. W. Bailey), 345
Dicken, Samuel N. *Kentucky karst landscapes*, 708
A Kentucky solution cuesta, 539
Dickey, Robert I., and Chester K. Wentworth. *Ventifact localities in the United States*, 97
Dicynodon Tigriceps, a mounted skeleton of the mammal-like reptile (E. C. Olson), 1063
Dikes in vicinity of Idaho batholith, Mont. (C. M. Langton), 44
in wall rocks of Sierra Nevada intrusions (E. B. Mayo), 683
Diller, J. S. Cited on Mount Mazama (W. W. Atwood, Jr.), 146
Dip, modified by creep (N. H. Stearn), 323
separation, definition of (J. E. Gill), 1071
slip of faults (J. E. Gill), 1071
and strike problems: Mathematically surveyed. By K. W. Earle. Review by G. A. Berg, 1082
Discussion, a: The foundations of atolls (J. E. Hoffmeister and H. S. Ladd), 653
Disorderly packing of spheres (L. C. Graton and H. J. Fraser), 790
Distribution of Teton glaciers (F. Fryxell), 385
Doe Run-Avondale district, Pa. (J. H. Mackin), 372
Dolerite sill associated with Negaunee iron formation (J. L. Adler), 129, 131
Dolines in Ky. (S. N. Dicken), 714, 721
Dolomitization in Powell formation, Mo. (G. W. Rust), 400
Dome, the pre-Chattanooga development of the Nashville (C. W. Wilson), 449
Doty, R. J. Cited on porosity of sands (H. J. Fraser), 917
Drainage features of glaciers (L. L. Ray), 300
in Maine (F. W. Toppan), 85
in Western Coal Basin, Ky. (S. N. Dicken), 711
Dripping Spring escarpment, Ky. (S. N. Dicken), 539
Dubuque-Stewartville problems, Ordovician (G. M. Kay), 561
Duct element in packing of spheres (L. C. Graton and H. J. Fraser), 852
Dukes boulder bed (R. F. Flint), 774
Duluth, anorthosite of (F. F. Grout and W. W. Longley), 133
Dunes in glaciated valleys (L. L. Ray), 312

Earle, Kenneth W. Dip and strike problems: Mathematically surveyed. Review by G. A. Berg, 1082
Earthquake of 1915 in Nev. (B. M. Page), 690
Earthquakes of deep focus, geologic deductions from (J. S. De Lury), 759
Eastern massif of Sierra Nevada intrusions (E. B. Mayo), 676

Elberton granite, pedestal rocks in (G. W. Crickmay), 747
Electrolytic deposition of ores, Cornwall mines, Mo. (G. W. Rust), 403
Elliptical lake basins, "Carolina Bays" and (W. F. Prouty), 200
wells in Alaskan glaciers (L. L. Ray), 299
Elston, E. D. Cited on stream fluting (J. H. Maxson and I. Campbell), 731
Emplacement of batholiths, method of (C. M. Langton), 57
Sierra Nevada intrusions (E. B. Mayo), 679
Enargite in Cornwall mines, Mo. (G. W. Rust), 413
Enrichment, secondary, in Cornwall mines, Mo. (G. W. Rust), 415
Eocene, as age of Idaho batholith (C. M. Langton), 45, 56
Eolian fluting compared with stream fluting (J. H. Maxson and I. Campbell), 742
Epicyles of erosion in the valleys of the Colorado Plateau Province (R. W. Bailey), 337
Erosion, alpine glacial, asymmetrical topography in high latitudes resulting from (R. Tuck), 530
cycle, terminology of surface forms of the (J. H. Maxson and G. H. Anderson), 88
epicycles of, in the valleys of the Colo. Plateau Province (R. W. Bailey), 337
features of glacial valleys (L. L. Ray), 310
stream, stream fluting and (J. H. Maxson and I. Campbell), 729
Erratic boulders, etched, a call for information concerning (W. H. Hobbs), 551
Escarpment, Dripping Spring, Ky. (S. N. Dicken), 539
Moosehead, in Maine (F. W. Toppan), 82
Etched erratic boulders, a call for information concerning (W. H. Hobbs), 551
Eua, island of (J. E. Hoffmeister and H. S. Ladd), 656
Euarctos americanus (J. W. Stovall and C. S. Johnston), 208
Exfoliation as factor in origin of pedestal rocks (G. W. Crickmay), 755
Experimental analysis of indurated sediments (W. C. Krumbein), 483
study of the porosity and permeability of clastic sediments (H. J. Fraser), 910
Exploration of Teton Range (F. Fryxell), 382
Expression, peneplain, rock resistance and (W. S. Cole), 1049
Extinct volcano, the glacial history of an, Crater Lake National Park (W. W. Atwood, Jr.), 142

Fair, G. M., and L. P. Hatch. Cited on flow of liquids through packed spheres (L. C. Graton and H. J Fraser), 873
Fairbairn, H. W. *Notes on the mechanics of rock foliation*, 591
Falling Ice Glacier, Wy. (F. Fryxell), 393
Famatinite in Cornwall mines, Mo. (G. W. Rust), 414
Fandomeplain, in arid erosion cycle (J. H. Maxson and G. H. Anderson), 95
Fault, Martic overthrust (J. H. Mackin), 356
St. Lawrence (F. W. Toppan), 76
Faulting, basin-range, of 1915 in Pleasant Valley, Nevada (B. M. Page), 690
at great depths (J. S. De Lury), 759
in Mont. in vicinity of Idaho batholith (C. M. Langton), 28, 31, 40, 42, 43, 46, 48
of Mother Lode district (E. Cloos), 233
in the Nashville dome (C. W. Wilson), 459
in Negaunee iron formation (J. L. Adler), 132
produced experimentally (J. A. Broggi), 1069
in southeastern Mo. (G. W. Rust), 399
Faults, normal and reverse. Studies for students (J. E. Gill), 1071
Features, some minor, of valley glaciers and valley glaciation (L. L. Ray), 297
Feldspar, composition of, in classification of igneous rocks (S. J. Shand), 614
Feldspars in anorthosite at Duluth and in the Adirondacks (F. F. Grout and W. W. Longley), 134, 138
Fenner, C. N. Cited on iron content of basaltic magma (M. P. Bajpai), 71
Cited on *nuées ardentes* (R. H. Finch), 547

Cited on replacive invasion of magmas (J. T. Stark), 24
Fern Glen formation (R. E. Peck), 765
Fernvale formation, Tenn. (C. W. Wilson), 455
Fiji Islands (J. E. Hoffmeister and H. S. Ladd), 661
Finch, R. H. *On the mechanics of nuées ardentes*, 545
Fiords in Maine (F. W. Toppan), 80
Fisher, D. J. Review of Geology of natural gas. By Henry A. Ley, 666
Flint, Richard Foster. *How many glacial stages are recorded in New England?* 771
C. R. Longwell, and A. Knopf. Outlines of physical geology. Review by G. W. White, 328
Flow of liquids through packed spheres (L. C. Graton and H. J. Fraser), 851, 889, 904
structures in Sierra Nevada intrusions (E. B. Mayo), 682
Fluid mechanics of salt domes. By L. L. Nettleton. Review by D. C. Barton, 221
Fluorite in Front Range granites (M. F. Boos), 1048
Fluting, stream, and stream erosion (J. H. Maxson and I. Campbell), 729
Focus, deep, geologic deductions from earthquakes of (J. S. De Lury), 759
Folding as a control in emplacement of Sierra Nevada intrusions (E. B. Mayo), 680
in the Nashville dome (C. W. Wilson), 457
produced experimentally (J. A. Broggi), 1069
in vicinity of Idaho batholith, Mont. (C. M. Langton), 46
Foliation, rock, notes on the mechanics of (H. W. Fairbairn), 591
Foot-wall trace, definition of (J. E. Gill), 1071
Fossil grizzly bears, two, from the Pleistocene of Oklahoma (J. W. Stovall and C. S. Johnston), 208
Foundations of atolls, the: A discussion (J. E. Hoffmeister and H. S. Ladd), 653
Fracturing in the Deadwood formation (G. M. Schwartz), 525
Framboidal structure in copper ores (G. W. Rust), 407, 411
Fraser, H. J. *Experimental study of the porosity and permeability of clastic sediments*, 910
and L. C. Graton. *Systematic packing of spheres—with particular relation to porosity and permeability*, 785
Freyberg, B. von. Die Bodenschätze des Staates Minas Geraes, Brazilien. Review by R. T. Chamberlin, 445
Frog-egg structure in copper ores (G. W. Rust), 408
Front range granites, some heavy minerals of the (M. F. Boos), 1033
Frost, action of, at Great Bear Lake (C. Riley), 499
Fryxell, Fritiof. *Glaciers of the Grand Teton National Park of Wyoming*, 381
Fuller, M. L. Cited on glaciation in New England (R. F. Flint), 771
Furnaceville member of the Reynales formation (J. T. Sanford), 170, 173, 179
Furrowed and ridged gravel beds (L. L. Ray), 310

Galena formation (G. M. Kay), 561
Gardiner, J. Stanley. Cited on the foundations of atolls (J. E. Hoffmeister and H. S. Ladd), 653
Gardiners clay (R. F. Flint), 774, 777
Garnet in Front Range granites (M. F. Boos), 1047
Gas bubbles, pits in coastal pahoehoe lavas controlled by (H. S. Palmer and H. A. Powers), 639
Geography and geology of the region including Cape Cod, the Elizabeth Islands, Nantucket, Marthas Vineyard, No Mans Land and Block Island (Massachusetts). By J. B. Woodworth and E. Wigglesworth. Review by Kirk Bryan, 667
Geologic deductions from earthquakes of deep focus (J. S. De Lury), 759
history at a glance. By L. W. Richards and G. L. Richards, Jr. Review by E. C. Olson, 335
occurrence, in classification of igneous rocks (S. J. Shand), 610
structures. By Bailey Willis and Robin Willis. Review by R. T. Chamberlin, 553
Geologie appliquée. By E. Raguin. Review by E. C. Olson, 669

Geologische Weltbild, um das. By E. Haarmann. Review by E. Cloos, 783

Geology of Central Alberta. By J. A. Allen and R. L. Rutherford. Review by E. C. Olson, 335
of Great Bear Lake (C. Riley), 501
of Maine (F. W. Toppan), 78
and mammalian fauna of the Pleistocene of Nebraska. By A. L. Lugn and C. B. Schultz. Review by E. C. Olson, 559
of natural gas. By Henry A. Ley. Review by D. J. Fisher, 666
of the northeastern part of the Idaho batholith and adjacent region in Mont. (C. M. Langton), 27
and ore deposits of Sierra County, N.M. By G. T. Harley. Review by R. T. Chamberlin, 110
of Vitilevu, Fiji. By H. S. Ladd Review by R. T. Chamberlin, 781

Geometrical analyses of Gwalior trap, India (M. P. Bajpai), 70

Geometry of packing of spheres (L. C. Graton and H. J. Fraser), 792

Geophysical data on interior of earth (J. S. De Lury), 759

Georgia, pedestal rocks in (G. W. Crickmay), 745

Gill, J. E. *Studies for students. Normal and reverse faults*, 1071

Gilluly, J. Cited on myrmekite in migmatites (J. T. Stark), 18

Glacial deposits correlated with terraces, upper Arkansas valley (W. E. Powers), 197
outside the terminal moraine in Pa. By F. Leverett. Review by L. Horberg, 670
erosion, alpine, asymmetrical topography in high latitudes resulting from (R. Tuck), 530
history, the, of an extinct volcano, Crater Lake National Park (W. W. Atwood, Jr.), 142
sand, mechanical analysis of (W. C. Krumbein), 483, 488
stages, how many, are recorded in New England (R. F. Flint), 771
tables (L. L. Ray), 322

Glaciation in Maine (F. W. Toppan), 80, 81, 86
in Teton Range, Wy. (F. Fryxell), 381
valley, some minor features of valley glaciers and (L. L. Ray), 297

Glaciers of the Grand Teton National Park of Wyoming (F. Fryxell), 381
valley, and valley glaciation, some minor features of (L. L. Ray), 297

Glacio-volcanic sequence, Crater Lake (W. W. Atwood, Jr.), 142, 149

Glenarm series, the age of the, in southeastern Pa., the problem of the Martic overthrust and (J. H. Mackin), 356

Glennie, E. A. Gravity. Review by R. T. Chamberlin, 1084

Gneiss, schlieren, in Idaho batholith (C. M. Langton), 38

Gold, along Mother Lode (E. Cloos), 225

Goodrich quartzite, Mich. (J. L. Adler), 116

Grabau, A. W. Cited on "Clinton" of western New York (J. T. Sanford), 171, 172

Grand Canyon, stream fluting in (J. H. Maxson and I. Campbell), 729, 734
Teton National Park of Wy., glaciers of the (F. Fryxell), 381

Granite pedestal rocks in the southern Appalachian Piedmont (G. W. Crickmay), 745
-porphyries, the, of Great Bear Lake, Northwest Territories, Canada (C. Riley), 497
relations of anorthosite to (F. F. Grout and W. W. Longley), 133

Granites of the Great Bear Lake region (C. Riley), 520
of the Sierra Nevada (E. B. Mayo), 681
some heavy minerals of the Front Range (M. F. Boos), 1033

Granitization in Idaho batholith (C. M. Langton), 42
in migmatites of Sawatch Range, Colo. (J. T. Stark), 12

Granitoid rocks, the compositions of some African (F. F. Grout), 281

Granophyre dikes in Great Bear Lake region (C. Riley), 520

Graton, L. C., and H. J. Fraser. *Systematic packing of spheres—with particular relation to porosity and permeability*, 785

Gravel beds, ridged and furrowed (L. L. Ray), 310
permeability of (H. J. Fraser), 991
porosity of (H. J. Fraser), 945

Graves Creek Range, Mont. (C. M. Langton), 27, 29

Gravity. By E. A. Glennie. Review by R. T. Chamberlin, 1084

Gravity survey at Crosbyton, Tex. (A. J. Hoskinson), 436

Great Bear Lake, Northwest Territories, Canada, the granite-porphyries of (C. Riley), 497

Gregory, W. K. Cited on erosion of Colorado Plateau, 349

Grimes Creek, the valley of, in the Payette Canyon, Idaho (A. L. Anderson), 618

Grizzly bears, two fossil, from the Pleistocene of Oklahoma (J. W. Stovall and C. S. Johnston), 208

Grogan, Robert. Review of On migmatites and associated pre-Cambrian rocks of southwestern Finland, Part III; The Aland Islands. By J. J. Sederholm, 784

Grout, Frank F. *The compositions of some African granitoid rocks*, 281
Cited on classification of igneous rocks (S. J. Shand), 610
and W. W. Longley. *Relations of anorthosite to granite*, 133

Grove, Brandon. Review of Lower Carboniferous corals of China. By C. C. Yü, 330

Growth stages of Allagecrinus americanus Rowley (R. E. Peck), 765

Grundzüge der Geologie und Lagerstättenkunde Chiles. By J. Brüggen. Review by E. C. Olson, 331

Gruner, J. W. Cited on origin of ferric oxides in Negaunee iron formation (J. L. Adler), 131

Guide to the geological model of Ardnamurchan. By J. E. Richey. Review by R. T. Chamberlin, 222

Gwalior trap from Gwalior, India (M. P. Bajpai), 61

Haarmann, Erich. Um das geologische Weltbild. Review by E. Cloos, 783

Hall, James. Cited on age of Peach Bottom slate (J. H. Mackin), 378
Cited on "Clinton" of western N.Y. (J. T. Sanford), 170, 176, 182

Handbuch der Geophysik, Vol. II. Der geologische Aufbau der Erde. By A. Born. Review by A. C. Noé, 108

Hanging-wall trace, definition of (J. E. Gill), 1071

Haphazard packing of spheres (L. C. Graton and H. J. Fraser), 827, 841, 875

Harker, Alfred. Metamorphism: A study of the transformations of rock masses. Review by C. H. Behre, Jr., 1080

Harley, G. T. The geology and ore deposits of Sierra County, New Mexico. Review by R. T. Chamberlin, 110

Harrington, E. R. Cited on the origin of ice caves (C. R. Swartzlow), 440

Harrington, Horacio. Sobre la presencia de restos de la flora de "Glossopteris" en las Sierras Australes de Buenos Aires. Review by R. T. Chamberlin, 668

Hartnagel, C. A., and D. H. Newland. Cited on "Clinton" of western New York (J. T. Sanford), 175, 176, 179, 181

Hasmark formation in Mont. in vicinity of Idaho batholith (C. M. Langton), 34

Hatch, F. H., and A. K. Wells. Cited on classification of igneous rocks (S. J. Shand), 610

Hatch, L. P., and G. M. Fair. Cited on flow of liquids through packed spheres (L. C. Graton and H. J. Fraser), 873, 897

Hawaii, pits in pahoehoe lavas (H. S. Palmer and H. A. Powers), 639

Hawkins, A. C. Cited on age of Glenarm series (J. H. Mackin), 373

Hayden, F. V. Cited on exploration of Teton Range (F. Fryxell), 382

Hazen, A. Cited on permeability of sediments (H. J. Fraser), 951, 961

Heat as a factor in deep-focus earthquakes (J. S. De Lury), 763

Heath formation (H. W. Scott), 1125, 1128

Heaved blocks at Great Bear Lake (C. Riley), 499

Heavy minerals, some, of the Front Range granites (M. F. Boos), 1033

Heilprin, A. Cited on *nuées ardentes* (R. H. Finch), 549

Heim, Arnold. Review of Minya Gongkar, Forschungsreise ins Hochgebirge von Chinesisch Tibet. Review by R. T. Chamberlin, 446

Hell Gate porphyry, in Sawatch Range, Colo. (J. T. Stark), 16

Hermitage formation, Tenn. (C. W. Wilson), 456
High latitudes, asymmetrical topography in, resulting from alpine glacial erosion (R. Tuck), 530
Historical geology. By W. A. Ver Wiebe. Review by E. C. Olson, 110
History, glacial, of an extinct volcano, Crater Lake National Park (W. W. Atwood, Jr.), 142
physiographic, of the upper Arkansas River valley and the Royal Gorge, Colo. (W. E. Powers), 184
Hobbs, William Herbert, *A call for information concerning etched erratic boulders*, 551
Cited on geology of Maine (F. W. Toppan), 80
Hodge, E. T. Cited on classification of igneous rocks (S. J. Shand), 609
Hodge, J. T. Cited on residual boulders of Appalachian Piedmont (G. W. Crickmay), 752
Hoffmeister, J. E., and H. S. Ladd. *The foundations of atolls: A discussion*, 653
Holmes, A. Cited on classification of igneous rocks (S. J. Shand), 609
Horberg, Leland. Review of Glacial deposits outside the terminal moraine in Pennsylvania. By F. Leverett, 670
Hornblende in Front Range granites (M. F. Boos), 1045
How many glacial stages are recorded in New England? (R. F. Flint), 771
Humid cycle of erosion (J. H. Maxson and G. H. Anderson), 88
Huronian, Middle, Negaunee iron formation (J. L. Adler), 116
Upper, Goodrich quartzite (J. L. Adler), 116
Hydration as factor in origin of granite pedestals (G. W. Crickmay), 754
Hydraulic gradient a factor in permeability of sediments (H. J. Fraser), 960
Hydrothermal origin of ores at Cornwall mines, Mo. (G. W. Rust), 415, 419
Hypabyssals, Gwalior trap, India (M. P. Bajpai), 65
in vicinity of Idaho batholith, Mont. (C. M. Langton), 44

Ice caves in northern Calif. (C. R. Swartzlow), 440
Ice cones, débris covered (L. L. Ray), 319
Devonian, in Pa. (B. Willard), 214
Idaho batholith, geology of the northeastern part of, and adjacent region in Mont. (C. M. Langton), 27
the valley of Grimes Creek in the Payette Canyon (A. L. Anderson), 618
Iddings, J. P. Cited on classification of igneous rocks (S. J. Shand), 609
Igneous rocks, the mineralogical classification of: A comparison of recent proposals (S. J. Shand), 609
of northeastern part of Idaho batholith and vicinity in Mont. (C. M. Langton), 37
Illinois, Galena formation in (G. M. Kay), 570
Inclusions in Sierra Nevada intrusions (E. B. Mayo), 681
India, the Gwalior trap from Gwalior (M. P. Bajpai), 61
Indian Creek batholith, heavy minerals in (M. F. Boos), 1039
Indurated sediments, thin-section mechanical analysis of (W. C. Krumbein), 482
Instruments for classifying quartz particles (H. Wadell), 252
Interior of earth, condition of (J. S. De Lury), 759
Plains, erosion surfaces in (W. S. Cole), 1061
Introduction aux études minières coloniales. Review by R. T. Chamberlin, 669
Intrusions, some, and their wall rocks in the Sierra Nevada (E. B. Mayo), 673
Iowa, northern, Galena formation in (G. M. Kay), 567
Iron formation, Negaunee, of Marquette County, Mich., stratigraphic zones in the (J. L. Adler), 113
Isostatic anomalies at Crosbyton, Tex. (A. J. Hoskinson), 436
Isostasy (J. S. De Lury), 759
Ithaca sandstone, striae in (B. Willard), 215

Jaggar, T. A. Cited on *nuées ardentes* (R. H. Finch), 549
Jasper conglomerate in Negaunee iron formation (J. L. Adler), 116, 130
Knob zone of Negaunee iron formation (J. L. Adler), 130

Jeffreys, H. Cited on interior of earth (J. S. De Lury), 764
Johannsen, A. Cited on classification of igenous rocks (S. J. Shand), 609
Johnston, C. Stuart, and J. Willis Stovall. *Two fossil grizzly bears from the Pleistocene of Oklahoma*, 208
Johnson, D. W. Cited on geology of Maine (F. W. Toppan), 79, 80
Jointing in the Lindsley Bay granite porphyry (C. Riley), 509
in the Mother Lode district (E. Cloos), 235
in the Nashville dome (C. W. Wilson), 462
Joints in Sierra Nevada intrusions (E. B. Mayo), 683
Jonas, A. I. Cited on Martic overthrust (J. H. Mackin), 356, 359, 363, 366
Cited on age of Glenarm series (J. H. Mackin), 371, 373, 378
Jordan sandstone in Stillwater deep-well records (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 634
Jurassic, as age of Idaho batholith (C. M. Langton), 45
intrusions in Sierra Nevada (E. B. Mayo), 673
Mariposa formation (E. Cloos), 228
System in Great Britain, the. By W. J. Arkell. Review by C. L. Cooper, 220

Kaimur sandstone, Gwalior, India (M. P. Bajpai), 62
Kanawha section, erosion surfaces of (W. S. Cole), 1061
Karst landscapes, Kentucky (S. N. Dicken), 708
topography, Ky. (S. N. Dicken), 541
Katalog der in den Österreichischen Sammlungen Befindlichen Säugetierrests des Jungtertiärs Österreicsh und der Randgebiete. By J. Pia and O. Sickenberg. Review by E. C. Olson, 447
Katz, F. J. Cited on glaciation in Maine (F. W. Toppan), 80
Kay, G. M. *Ordovician Stewartville-Dubuque problems*, 561
Keith, A. Cited on history of Nashville dome (C. W. Wilson), 468
Kenai Peninsula, Alaska, asymmetrical topography of (R. Tuck), 531
Kenosha batholith (M. F. Boos), 1039
Kentucky karst landscapes (S. N. Dicken), 708
solution cuesta (S. N. Dicken), 539
Kibbey formation (H. W. Scott), 1014, 1125, 1126
Kidd, D. F. Cited on geology of Lindsley Bay area (C. Riley), 501
Kinderhook formations (R. E. Peck), 766
Kindle, E. M., and F. B. Taylor. Cited on stratigraphy of Niagara Gorge (J. T. Sanford), 171
Knopf, Adolph. Cited on recent Great Basin faults (Gianella and Callaghan), 20
C. R. Longwell, and R. F. Flint. Outlines of physical geology. Review by G. W. White, 328
Knopf, E. B. Cited on age of Glenarm series (J. H. Mackin), 373
Cited on Martic overthrust (J. H. Mackin), 356, 359, 363, 366
Kramer, William. *Some central Texas wells that filled with water*, 644
Krumbein, W. C. *Thin-section mechanical analysis of indurated sediments*, 482
Kuenen, Ph. H. Cited on foundations of atolls (J. E. Hoffmeister and H. S. Ladd), 659

Laboratory manual of physical and historical geology. By K. F. Mather and C. J. Roy. Review by E. L. Tullis, 558
Labradorite in anorthosites at Duluth and in the Adirondacks (J. F. Grout and W. W. Longley), 134, 138
Lacroix, A. Cited on classification of igneous rocks (S. J. Shand), 610
Ladd, H. S. Geology of Vitilevu, Fiji. Review by R. T. Chamberlin, 781
and J. E. Hoffmeister. *The foundations of atolls: A discussion*, 653
Lake basins, elliptical, "Carolina Bays" and (W. F. Prouty), 200
Lambert, Walter D. Review of Beiträge zur Untersuchung der isostatischen Kompensation der schweizerischen Gebirgsmassen. By Mariette Lehner, 105
Landscapes, Kentucky karst (S. N. Dicken), 708
Langton, Claude M. *Geology of the northeastern part of the Idaho batholith and adjacent region in Mont.*, 27
Lassen Peak, *nuée ardente* at (R. H. Finch), 545

Lau, islands of (J. E. Hoffmeister and H. S. Ladd), 661
Laurel limestone, Tenn. (C. W. Wilson), 454
Lava flows, Gwalior trap, India M. P. Bajpai), 65
at Mount Mazama (W. W. Atwood, Jr.), 142
in vicinity of Idaho batholith, Mont. (C. M. Langton), 44
tubes in Calif. (C. R. Swartzlow), 440
Lavas, pits in coastal pahoehoe, controlled by gas bubbles (H. S. Palmer and H. A. Powers), 639
Lawson, A. C. Cited on arid erosion cycle (J. H. Maxson and G. H. Anderson), 92
Layer in packing of spheres (L. C. Graton and H. J. Fraser), 791, 828
Lead and zinc district, Ill., Galena formation in (G. M. Kay), 570
LeConte, J. Cited on residual boulders of Appalachian Piedmont (G. W. Crickmay), 752
Lee, C. H. Cited on porosity of sands (H. J. Fraser), 917
Lego limestone, Tenn. (C. W. Wilson), 454
Lehesten slate, X-ray analysis of (H. W. Fairbairn), 600
Lehner, Mariette. Beiträge zur Untersuchung der isostatischen Kompensation der schweizerischen Gebirgsmassen. Review by W. D. Lambert, 105
Lehrbuch der Geologie, III Teil. Geologische Länderkunde (Regionale Geologie). By F. X. Schaffer. Review by E. C. Olson, 447
Leipers formation, Tenn. (C. W. Wilson), 455, 470
Leith, C. K. Cited on rock foliation (H. W. Fairbairn), 593
and C. R. Van Hise. Cited on origin of ferric oxides in Negaunee iron formation (J. L. Adler), 131
Leverett, F. Glacial deposits outside the terminal moraine in Pennsylvania. Review by L. Horberg, 670
Lexington erosion surface (W. S. Cole), 1054, 1056, 1057, 1060
Ley, Henry A. Geology of natural gas. Review by D. J. Fisher, 666
Limestone as the foundations of atolls (J. E. Hoffmeister and H. S. Ladd), 656
Limestones, the, and marls of Minnesota. By C. R. Stauffer and G. A. Thiel. Review by G. Otto, 331
Lincoln, F. C. Cited on classification of igneous rocks (S. J. Shand), 609
Lindgren, W. Cited on Idaho batholith (C. M. Langton), 40, 41, 45
Cited on Bitterroot Range (C. M. Langton), 29
Lindsley Bay area of Great Bear Lake (C. Riley), 497
granite-porphyry (C. Riley), 501, 504
Linear arrangement in packing of spheres (L. C. Graton and H. J. Fraser), 792
Lister, J. J. Cited on foundations of atolls (J. E. Hoffmeister and H. S. Ladd), 657
Lit-par-lit intrusions in migmatites of Sawatch Range, Colo. (J. T. Stark), 7, 12, 23
Lobeck, A. K. Airways of America, Guidebook No. 1, The United Air Lines. Review by E. L. Tullis, 332
Lobelville formation, Tenn. (C. W. Wilson), 453
Lockport group of Central Basin, Tenn. (C. W. Wilson), 453, 479
Lode, Mother, and Sierra Nevada batholith (E. Cloos), 225
Loess, permeability of (H. J. Fraser), 995
Log Cabin batholith, heavy minerals in (M. F. Boos), 1040
Long Island, glaciation of (R. F. Flint), 772
Longley, W. W., and Frank F. Grout. *Relations of anorthosite to granite*, 133
Longs Peak–St. Vrain batholith (M. F. Boos), 1039
Longwell, C. R., A. Knopf, and R. F. Flint. Outlines of physical geology. Review by G. W. White, 328
Lower Carboniferous corals of China. By C. C. Yü. Review by B. Grove, 330
Green shale (J. T. Sanford), 170
Lugeon, M. Cited on stream fluting (J. H. Maxson and I. Campbell), 731
Lugn, A. L., and C. B. Schultz. Geology and mammalian fauna of the Pleistocene of Nebraska. Review by E. C. Olson, 559

McCalls Ferry–Quarryville district, Pa. (J. H. Mackin), 358
MacClintock, Paul. Review of The changing world of the ice age. By R. A. Daly, 555
McGee, W. J. Cited on erosion cycle in arid climates (J. H. Maxson and G. H. Anderson), 92
Mackin, J. Hoover. *The problem of the Martic overthrust and the age of the Glenarm series in southeastern Pa.*, 356
Maclurea zone of Galena formation (G. M. Kay), 563
Magma, of Gwalior trap, India (M. P. Bajpai), 73
Magnetite in Front Range granites (M. F. Boos), 1048
Magnetometer readings around elliptical lakes, Carolina (W. F. Prouty), 200
Maine, the physiography of (F. W. Toppan), 76
  geology of (F. W. Toppan), 78
Makasin Hill zone of Negaunee iron formation (J. L. Adler), 127
Makatea of Mangaia island (J. E. Hoffmeister and H. S. Ladd), 658
Mammal-like reptile Dicynodon Tigriceps, a mounted skeleton of the (E. C. Olson), 1063
Mammoth Cave series in Ky. (S. N. Dicken), 710
Mangaia, island of (J. E. Hoffmeister and H. S. Ladd), 658
Manhasset formation (R. F. Flint), 774, 776
Mannetto till (R. F. Flint), 774
Map of area near Spencer Glacier, Alaska (R. Tuck), 543
  areal geology of Blueberry district (J. L. Adler), 118
  of North Lake district (J. L. Adler), 114
  of Arkansas valley between Leadville and Canon City (W. E. Powers), 185
  of bay in Myrtle Beach showing secondary rim of elliptical bay (W. F. Prouty), 205
  direction of ice movement during early stages of glaciation on Mount Mazama (W. W. Atwood, Jr.), 166
  during final stages of glaciation of Mount Mazama (W. W. Atwood, Jr.), 165
  distribution of terraces west of Salida, Colo. (W. E. Powers), 188
  of Dripping Spring escarpment and vicinity in Ky. (S. N. Dicken), 540
  of 1915 fault scarps, Nev. (B. M. Page), 696
  generalized tectonic, of pre-Cretaceous formations in eastern Calif. (E. B. Mayo), 675
  geologic, of an area in central Tex. (W. Kramer), 645
  geological, of Chester Valley area, Pa. (J. H. Mackin), 360
  of the country around Gwalior, India (M. P. Bajpai), 62
  of the Lindsley Bay area (C. Riley), 506
  geology of northeastern part of Idaho batholith and adjacent region in Mont. (C. M. Langton), 32
  glacial deposits near Mount Princeton, Colo. (W. E. Powers), 196
  granites of the Front Range (M. F. Boos), 1035
  gravity stations in Crosbyton area, Tex. (A. J. Hoskinson), 437
  index, of central Tenn. (C. W. Wilson), 463
  of Crater Lake region (W. W. Atwood, Jr.), 149
  showing major fault patterns of western Mont. (C. M. Langton), 28
  isopach, of the Big Snowy group of central Mont. (H. W. Scott), 1023
  of localities in the Mississippi Valley along belt of outcrop of the Stewartville and Dubuque formations (G. M. Kay), 562
  magnetometer observations around Singletary Lake Basin, N.C. (W. F. Prouty), 203
  of part of Moose Pass district, Kenai Peninsula (R. Tuck), 532
  physiographic subdivisions of the state of Maine (F. W. Toppan), 77
  of Purches and Peters creeks district, Alaska (R. Tuck), 533
  of region west of Canon City, Colo. (W. E. Powers), 190
  showing distribution of karst landscapes, Ky. (S. N. Dicken), 719
  showing high magnetic area southeast of Dial Bay, S.C. (W. F. Prouty), 202
  showing high magnetic area southeast of small bay near Little River, N.C. (W. F. Prouty), 201
  showing location of Cornwall mines, Mo. (G. W. Rust), 399

sketch, of Grand Teton National Park (F. Fryxell), 383
of Nev. (B. M. Page) 691
of northeast slope of Lassen Peak (R. H. Finch), 546
showing course of Grimes Creek, Idaho (A. L. Anderson), 619
showing Ky. karst (S. N. Dicken), 709
showing location of Sawatch Range and the general relationships of the pre-Cambrian intrusions to the migmatized schists (J. T. Stark), 3
of southern part of Africa (F. F. Grout), 285
structural, of Mother Lode region (E. Cloos), 230
structure contour, of central Tenn. (C. W. Wilson), 451
on the Chattanooga shale (C. W. Wilson), 473
of Lillydale quadrangle, Tenn. (C. W. Wilson), 462
sub-Chattanooga, geologic, of central Tenn. (C. W. Wilson), 450
of the Sudbury nickel-copper area, Ont. (R. Thomson), 428
topographic, of Chester Valley, Pa. (J. H. Mackin), 358
showing position of Grimes Creek in Payette Canyon, Idaho (A. L. Anderson), 621

Maplewood formation (J. T. Sanford), 174

Maquoketa formation (G. M. Kay), 565, 573

Marcasite in Cornwall mines, Mo. (G. W. Rust), 412

Marginal thrusts in Mother Lode district (E. Cloos), 233

Mariposa formation (E. Cloos), 228

Marquette County, Mich., stratigraphic zones in the Negaunee iron formation of (J. L. Adler), 113

Marshall, P. Cited on atolls (J. E. Hoffmeister and H. S. Ladd), 659

Martic overthrust, the problem of the, and the age of the Glenarm series in southeastern Pa. (J. H. Mackin), 356

Martville member of the Reynales formation (J. T. Sanford), 180

Marvine, A. R. Cited on migmatites in the Sawatch Range, Colo. (J. T. Stark), 11

Massif, central, of Sierra Nevada intrusions (E. B. Mayo), 676
eastern, of Sierra Nevada intrusions (E. B. Mayo), 676

Mather, Kirtley F., and Chalmer J. Roy. A laboratory manual of physical and historical geology. Review by E. L. Tullis, 558

Matureland, in erosion cycle (J. H. Maxson and G. H. Anderson), 90, 93

Maturity, in erosion cycle (J. H. Maxson and G. H. Anderson), 89, 93

Maxson, John H., and George H. Anderson. *Terminology of surface forms of the erosion cycle*, 88
and Ian Campbell. *Stream fluting and stream erosion*, 729

Mayo, Evans B. *Some intrusions and their wall rocks in the Sierra Nevada*, 673

Maysville group in Central Basin, Tenn. (C. W. Wilson), 455, 478

Mazama, Mount (W. W. Atwood, Jr.), 142

Mechanical analysis, thin-section, of indurated sediments (W. C. Krumbein), 482

Mechanics of nuées ardentes, on the (R. H. Finch), 545
of rock foliation, notes on (H. W. Fairbairn), 591

Medinan series of Central Basin, Tenn. W. Wilson), 454, 479

Mehl, M. G., E. R. Branson, and E. B. Branson. Conodont studies. Review by C. L. Cooper, 443

Melting in glacial ice (L. L. Ray), 298

Melton, F. A., and W. Schriever. Cited on origin of elliptical bays, Carolina (W. F. Prouty), 204

Mercer, Marion, and A. C. Austin. The story of diamonds. Review by R. T. Chamberlin, 670

Merriam, C. H. Cited on classification of American bears (J. W. Stovall and C. Stuart Johnston), 212

Merrill, G. P. Cited on residual boulders of Appalachian Piedmont (G. W. Crickmay), 752

Mesozoic palaeontology of British Somaliland, The. Part II of Geology and Palaeontology of British Somaliland. Review by E. C. Olson, 1083

Metamorphic effects of Sierra Nevada intrusions (E. B. Mayo), 683
rock, sudburite, near Sudbury, Ont. (R. Thomson), 427

Metamorphism of Lindsley-Bay granite-porphyry (C. Riley), 313
in Negaunee iron formation (J. T. Adler), 131
in origin of sudburite (R. Thomson), 432
A study of the transformations of rock masses. By Alfred Harker. Review by C. H. Behre, Jr., 1080
Metasediments, Paleozoic, of Sierra Nevada (E. B. Mayo), 677
Metavolcanic rocks of Sierra Nevada (E. B. Mayo), 678
Meteoric origin of elliptical lakes of Carolina (W. F. Prouty), 200
Mica orientation in rock foliation (H. W. Fairbairn), 509
Michigan, stratigraphic zones in the Negaunee iron formation of Marquette County (J. L. Adler), 113
Middle Huronian, Negaunee iron formation (J. L. Adler), 116
Teton Glacier, Wy. (F. Fryxell), 387
Migmatites and associated pre-Cambrian rocks of southwestern Finland, on, Part III; The Aland Islands. By J. J. Sederholm. Review by R. Grogan, 784
of the Sawatch Range, Colo. (J. T. Stark), 1
Mine Ridge anticline, Pa. (J. H. Mackin), 361, 363
Mineralization in Cornwall mines, Mo. (G. W. Rust), 401
in the Mother Lode (E. Cloos), 242
in relation to sudburite (R. Thomson), 434
Mineralizing solutions of Cornwall mines, Mo. (G. W. Rust), 415, 419
Mineralogical classification of igneous rocks: A comparison of recent proposals (S. J. Shand), 609
Minerals, some heavy, of the Front Range granites (M. F. Boos), 1033
Minnesota, anorthosites at Duluth (F. F. Grout and W. W. Longley), 133
southern, Galena formation in (G. M. Kay), 564
Stillwater deep-well records (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 630
Minimum cell in packing of spheres (L. C. Graton and H. J. Fraser), 798
Minor features, some, of valley glaciers and valley glaciation (L. L. Ray), 297
Minya Gongkar, Forschungsreise ins Hochgebirge von Chinesisch Tibet. By A. Heim. Review by R. T. Chamberlin, 446
Mississippian formations, Ky. S. N. Dicken), 539
-Pennsylvanian rocks of Mont. and northwestern Wy. (H. W. Scott), 1011
rocks of Western Coal Basin, Ky. (S. N. Dicken), 710
Missouri, southeastern, colloidal primary copper ores at Cornwall mines (G. W. Rust), 398
Mogul mine, silicification of shale in the (G. M. Schwartz), 524
Mohawkian series in Central Basin, Tenn. (C. W. Wilson), 456, 478
Moment of distribution (W. C. Krumbein), 485
Monadnocks in Maine (F. W. Toppan), 81, 82
Monazite in Front Range granites (M. F. Boos), 1047
Montana, geology of the northeastern part of the Idaho batholith and adjacent region in (C. M. Langton), 27
and northwestern Wy., some Carboniferous stratigraphy in (H. W. Scott), 1011
Montauk till (R. F. Flint), 774
Moos, A., H. Steinbrecher, and O. Stutzer. Deutsches Erdöl. Review by E. L. Tullis, 1081
Moosehead escarpment, Maine (F. W. Toppan), 82
Plateau, Maine (F. W. Toppan), 77, 81
Moraines in upper Arkansas valley (W. E. Powers), 196
Morar series, Gwalior, India (M. P. Bajpai), 63
Moshup till (R. F. Flint), 774
Mother Lode and Sierra Nevada batholith (E. Cloos), 225
structure (E. Cloos), 233
Mount Evans batholith, heavy minerals in (M. F. Boos), 1034
Mazama, (W. W. Atwood, Jr.), 142
Mountain-building, preliminary note on a physical phenomenon resembling (J. A. Broggi), 1067
Mounted skeleton of the mammal-like reptile Dicynodon Tigriceps (E. C. Olson), 1063

Mud balls (L. L. Ray), 318
Murraysburg formation, *Dicynodon Tigriceps* in (E. C. Olson), 1063
Muscovadite compared with sudburite (R. Thomson), 432
Muscovite in Front Range granites (M. F. Boos), 1046
Myrmekite in migmatites of Sawatch Range, Colo. (J. T. Stark), 10, 15, 17

Nashville dome, the pre-Chattanooga development of the (C. W. Wilson), 449
National Park, Crater Lake, the glacial history of an extinct volcano (W. W. Atwood, Jr.), 142
Grand Teton, of Wy., glaciers of the (F. Fryxell), 381
Neahga formation (J. T. Sanford), 170
Negaunee iron formation of Marquette County, Mich., stratigraphic zones in the (J. L. Adler), 113
origin of ferric oxides in (J. L. Adler), 131
Nettleton, L. L. Fluid mechanics of salt domes. Review by D. C. Barton, 221
Nevada, basin-range faulting of 1915 in Pleasant Valley (B. M. Page), 690
New England, how many glacial stages are recorded in (R. F. Flint), 771
-Maritime province, physiography of Maine (F. W. Toppan), 76
New York, anorthosites in Adirondacks (F. F. Grout and W. W. Longley), 133, 138
western, the "Clinton" in (J. T. Sanford), 169
Newland, D. H., and C. A. Hartnagel. Cited on "Clinton" of western New York (J. T. Sanford), 175, 179, 181
Niagaran series of Central Basin, Tenn. (C. W. Wilson), 453
Niggli, P. Cited on classification of igneous rocks (S. J. Shand), 610
Noé, A. C. Review of Deecke-Festschrift. By W. Deeke, 109
Review of Der geologische Aufbau der Erde. Handbuch der Geophysik, Vol. II. By A. Born, 108
Review of Das Ruhrgebiet. By H. Spethmann, 109
Review of Über Werden und Zerfall von Kontinentalschollen. By A. Born, 109
Nominal sectional diameter (H. Wadell), 258; (W. C. Krumbein), 489
Normal faults in vicinity of Idaho batholith, Mont. (C. M. Langton), 52
and reverse faults. Studies for students (J. E. Gill), 1071
North Carolina, pedestal rocks in (G. W. Crickmay), 745
Lake district, Mich. (J. L. Adler), 116
zone of Negaunee iron formation (J. L. Adler), 128
Northeastern part of the Idaho batholith and adjacent region in Mont., geology of (C. M. Langton), 27
Northern Calif., ice caves in (C. R. Swartzlow), 440
Rhodesia, granites of (F. F. Grout), 284
Northwest Territories, Canada, the granite-porphyries of Great Bear Lake (C. Riley), 497
Note, preliminary, on a physical phenomenon resembling mountain-building (J. A. Broggi), 1067
Notes on the mechanics of rock foliation (H. W. Fairbairn), 591
Nuées ardentes, on the mechanics of (R. H. Finch), 545

Oak Hill formation, optical analysis of (H. W. Fairbairn), 594, 602
Ocean waves and kindred geophysical phenomena. By V. Cornish. Review by E. C. Olson, 332
Octoraro schist (J. H. Mackin), 366, 373
Oklahoma, two fossil grizzly bears from the Pleistocene of (J. W. Stovall and C. S. Johnston), 208
Old age, in erosion cycle (J. H. Maxson and G. H. Anderson), 90, 94
Oldland, in erosion cycle (J. H. Maxson and G. H. Anderson), 90
arid, in erosion cycle (J. H. Maxson and G. H. Anderson), 94
Olson, Everett Claire. *A mounted skeleton of the mammal-like reptile Dicynodon Tigriceps*, 1063
Review of Contributions to the geology of northern Mongolia, 1083
Review of Geologic history at a glance. By L. W. Richards and G. L. Richards, Jr., 335
Review of Géologie appliquée. By E. Raguin, 669
Review of Geology of central Alberta. By J. A. Allen and R. L. Rutherford, 335

Review of Geology and mammalian fauna of the Pleistocene of Neb. By A. L. Lugn and C. B. Schultz, 559
Review of Grundzüge der Geologie und Lagerstättenkunde Chiles. By J. Brüggen, 331
Review of Historical geology. By W. A. Ver Wiebe, 110
Review of Katalog der in den Österreichischen Sammlungen Befindlichen Säugetierrests des Jungtertiärs Österreichs und der Randgebiete. By J. Pia and O. Sickenberg, 447
Review of Lehrbuch der Geologie, III Teil. Geologische Länderkunde (Regionale Geologie). By F. X. Schaffer, 447
Review of The Mesozoic palaeontology of British Somaliland. Part II of Geology and palaeontology of British Somaliland, 1083
Review of Ocean waves and kindred geophysical phenomena. By V. Cornish, 332
Review of Paleolithic man and the Nile Valley in Upper and Middle Egypt. By K. S. Sandford, 557
Review of Studi paleontologici e litologici sulla Cirenaici e sulla Tripolitania oriental, 558
Oneota dolomite in Stillwater deep-well records (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 635
Ontario, sudburite, a metamorphic rock near Sudbury (R. Thomson), 427
Ordovician formations at Cornwall mines, Mo. (G. W. Rust), 399
rocks of Central Basin, Tenn. (C. W. Wilson), 455, 477
of southeastern Pa. (J. H. Mackin), 357
Stewartville-Dubuque problems (G. M. Kay), 561
Oregon, Mount Mazama (W. W. Atwood, Jr.), 142
Ore-bearing solutions, penetration of, in sediments (H. J. Fraser), 1005
Ores, colloidal primary copper, at Cornwall mines, southeastern Mo. (G. W. Rust), 398
Orthite in Front Range granites (M. F. Boos), 1044
Orthorhombic packing of spheres (L. C. Graton and H. J. Fraser), 802, 803
Osgood formation, Tenn. (C. W. Wilson), 454
Otter formation (H. W. Scott), 1014, 1125
Otto, George. Review of The limestones and marls of Minnesota. By C. R. Stauffer and G. A. Thiel, 331
Outlines of physical geology. By C. R. Longwell, A. Knopf, and R. F. Flint. Review by G. W. White, 328
Ouvalas in Ky. karst landscape (S. N. Dicken), 716
Overthrust faults in vicinity of Idaho batholith, Mont. (C. M. Langton), 31, 48
the problem of the Martic, and the age of the Glenarm series in southeastern Pa. (J. H. Mackin), 356
Oxidation in Negaunee iron formation (J. L. Adler), 126
Oxoplecia zone of Galena formation (G. M. Kay), 565, 573

Packing, systematic, of spheres—with particular relation to porosity and permeability (L. C. Graton and H. J. Fraser), 785
Page, Ben M. *Basin-range faulting of 1915 in Pleasant Valley, Nevada*, 690
Pahoehoe lavas, coastal, pits in, controlled by gas bubbles (H. S. Palmer and H. A. Powers), 639
Paleolithic man and the Nile Valley in Upper and Middle Egypt, By K. S. Sandford. Review by E. C. Olson, 557
Paleozoic formations of Stillwater deep-well records (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 634
metasediments of Sierra Nevada (E. B. Mayo), 677
Palmer, Harold S., and Howard A. Powers. *Pits in coastal pahoehoe lavas controlled by gas bubbles*, 639
Panfan, in arid erosion cycle (J. H. Maxson and G. H. Anderson), 94
Park, Crater Lake National, the glacial history of an extinct volcano (W. W. Atwood, Jr.), 142
Parker strath (W. S. Cole), 1057, 1058
Particles, quartz, volume, shape, and roundness of (H. Wadell), 250
Payette Canyon, Idaho, the valley of Grimes Creek in the (A. L. Anderson), 618

Peach Bottom slate (J. H. Mackin), 357, 358, 377
syncline, Pa. (J. H. Mackin), 377
Pearce fault block, Nev. (B. M. Page), 693
Pebbles, effect of, on porosity of sands (H. J. Fraser), 928, 982
orientation of (H. J. Fraser), 978, 984
Peck, Raymond E. *Growth stages of Allagecrinus americanus Rowley*, 765
Pedestal rocks, granite, in the southern Appalachian Piedmont (G. W. Crickmay), 745
Pediments, in arid erosion cycle (J. H. Maxson and G. H. Anderson), 92
and rock benches of upper Arkansas valley (W. E. Powers), 193
Pediplain, in arid erosion cycle (J. H. Maxson and G. H. Anderson), 94
"Pegram" limestone, Tenn. (C. W. Wilson), 453
Pelée, Mont, *nuée ardente* at (R. H. Finch), 545
Peneplain expression, rock resistance and (W. S. Cole), 1049
Rocky Mt. (W. E. Powers), 193
in terminology of erosion cycle (J. H. Maxson and G. H. Anderson), 89, 90, 91, 95
Tertiary, in northeastern North America (F. W. Toppan), 77, 81
Pennsylvania, Devonian ice in (B. Willard), 214
the problem of the Martic overthrust and the age of the Glenarm series in southeastern (J. H. Mackin), 356
Pennsylvanian-Mississippian rocks of Montana and northwestern Wyoming (H. W. Scott), 1011
Perched boulders, dependent (L. L. Ray), 312
Perkins, E. H. Cited on physiography of Maine (F. W. Toppan), 86
Permeability of clastic sediments, experimental study of the porosity and (H. J. Fraser), 910
porosity and, systematic packing of spheres—with particular relation to (L. C. Graton and H. J. Fraser), 785
Permian basin, Tex., wells in (W. Kramer), 644
of South Africa, *Dicynodon Tigriceps* in (E. C. Olson), 1063
Petrographic description of sudburite (R. Thomson), 429
Petrography of anorthosites at Duluth (F. F. Grout and W. W. Longley), 134
Petrology of Gwalior trap, India (M. P. Bajpai), 66
Petty, J. Cited on origin of pedestal rocks (G. W. Crickmay), 748, 753, 756
Phenomenon, physical, resembling mountain-building, preliminary note on a (J. A. Broggi), 1067
Phosphoria formation (H. W. Scott), 1019
Physical phenomenon resembling mountain-building, preliminary note on a (J. A. Broggi), 1067
Physics of the Earth. Part V. Oceanography. Review by H. W. Straley, 333
Physiographic history of the upper Arkansas River valley and the Royal Gorge, Colorado (W. E. Powers), 184
Physiography of Bitterroot Range, Mont. (C. M. Langton), 29
McCalls Ferry–Quarryville district, Pa. (J. H. Mackin), 358
of Maine, (F. W. Toppan), 76
of Mont. in vicinity of Idaho batholith (C. M. Langton), 29
of Payette Canyon, Idaho (A. L. Anderson), 618
of Western Coal Basin, Ky. (S. N. Dicken), 708
Pia, Julius, and O. Sickenberg. Katalog der in den Österreichischen Sammlungen Befindlichen Säugetierrests des Jungtertiärs Österreichs und der Randgebiete. Review by E. C. Olson, 447
Piedmont, southern Appalachian, granite pedestal rocks in the (G. W. Crickmay), 745
Pikes Peak batholith, heavy minerals in (M. F. Boos), 1034
granite, Colo. (J. T. Stark), 2, 5
Pinedale glacial stage (F. Fryxell), 388, 392, 393, 396, 397
Pits in coastal pahoehoe lavas controlled by gas bubbles (H. S. Palmer and H. A. Powers), 639
Plaiting surfaces in rock foliation (H. W. Fairbairn), 598
Plane arrangement in packing of spheres (L. C. Graton and H. J. Fraser), 792

Plant cover, as erosion control (R. W. Bailey), 348
Plateau Province, the Colorado, epicycles of erosion in the valleys of (R. W. Bailey), 337
Pleasant Valley, Nevada, basin-range faulting of 1915 in (B. M. Page), 690
Pleistocene beds in Mont. in vicinity of Idaho batholith (C. M. Langton), 34
glaciation in New England (R. F. Flint), 771
in Teton Range, Wy. (F. Fryxell), 380, 388, 392, 393, 396, 397
of Oklahoma, two fossil grizzly bears from the (J. W. Stovall and C. S. Johnston), 208
terraces in upper Arkansas valley (W. E. Powers), 187
Pliocene sediments in upper Arkansas valley (W. E. Powers), 195
Plutonic rocks in Sierra Nevada (E. B. Mayo), 679
Pocket flutes in boulders (J. H. Maxson and I. Campbell), 740
Poiseuille law of flow of liquids (L. C., Graton and H. J. Fraser), 896, 898, 901, 904; (H. J. Fraser), 960
Ponors in Ky. (S. N. Dicken), 713, 721
Porosity and permeability of clastic sediments, experimental study of the (H. J. Fraser), 910
systematic packing of spheres—with particular relation to (L. C. Graton and H. J. Fraser), 785
Porphyries, the granite-, of Great Bear Lake, Northwest Territories, Canada (C. Riley), 497
Porphyroblastic texture, in migmatites of the Sawatch Range, Colo. (J. T. Stark), 8
Portage formation, striae in (B. Willard), 214
Postglacial erosion in Maine (F. W. Toppan), 85
Potholes in glaciated valleys (L. L. Ray), 311
Powell dolomite in Mo. (G. W. Rust), 399, 400
Powers, Howard A., and Harold S. Palmer. *Pits in coastal pahoehoe lavas controlled by gas bubbles*, 639
Powers, William E. *Physiographic history of the upper Arkansas River valley and the Royal Gorge, Colorado*, 184
Pre-Cambrian, Belt series, Mont. (C. M. Langton), 31
granites, heavy minerals in (M. F. Boos), 1034
Gwalior traps, India (M. P. Bajpai), 61
intrusives, Sawatch Range (J. T. Stark), 5
rocks of southeastern Pa. (J. H. Mackin), 356
schists, Sawatch Range (J. T. Stark), 4
sediments, analysis of (W. C. Krumbein), 482
Pre-Chattanooga development of the Nashville dome (C. W. Wilson), 449
Pre-Cretaceous rocks of Sierra Nevada (E. B. Mayo), 676
Preliminary note on a physical phenomenon resembling mountain-building (J. A. Broggi), 1067
Pressure in wells in central Tex. (W. Kramer), 649
Primary copper ores, colloidal, at Cornwall mines, southeastern Missouri (G. W. Rust), 398
foliation (H. W. Fairbairn), 592
mineralization in Cornwall mines, Mo. (G. W. Rust), 401
Princeton batholith, Colo. (J. T. Stark), 4
Probability factors in packing of pheres
Probability factors in packing of spheres (L. C. Graton and H. J. Fraser), 828
Problem of the Martic overthrust and the age of the Glenarm series in southeastern Pa. (J. H. Mackin), 356
Prosser formation (G. M. Kay), 562, 564
Prouty, W. F. *"Carolina Bays" and elliptical lake basins*, 200
Province, the Colorado Plateau, epicycles of erosion in the valleys of (R. W. Bailey), 337
Pseudo-glaciers at Great Bear Lake (C. Riley), 499
Publications received, 111, 223, 336, 448, 672
Pyrite in Cornwall mines, Mo. (G. W. Rust), 411
in Front Range granites (M. F. Boos), 1048
Pyroxene, in Gwalior trap, India (M. P. Bajpai), 71

Quadrant formation (H. W. Scott), 1011

Quartz in Cornwall mines, Mo. (G. W. Rust), 412
-dolerite, Gwalior, India (M. P. Bajpai), 67
orientation in rock foliation (H. W. Fairbairn), 598
particles, volume, shape, and roundness of (H. Wadell), 250
-porphyries of Lindsley Bay area (C. Riley), 503
Quartzite, mechanical analysis of (W. C. Krumbein), 483, 490

Radioactivity in Gwalior trap, India (M. P. Bajpai), 74
Raguin, E. Géologie appliquée. Review by E. C. Olson, 670
Ratio of alumina to bases in classification of igneous rocks (S. J. Shand), 615
critical, of grain-size in packing of spheres (H. J. Fraser), 919
Ray, Louis L. *Some minor features of valley glaciers and valley glaciation*, 297
Recent gravels in Mont., vicinity of Idaho batholith (C. M. Langton), 34
Receptaculites zone of Galena formation (G. M. Kay), 563, 574
Recrystallization a factor in permeability of sediments (H. J. Fraser), 1001
Red River formation (G. M. Kay), 586
Reinterpretation of the Stillwater deep-well records (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 630
Relations of anorthosite to granite (F. F. Grout and W. W. Longley), 133
Replacement in Cornwall mines, Mo. (G. W. Rust), 401, 409
in Idaho batholith (C. M. Langton), 42
in migmatites of Sawatch Range (J. T. Stark), 12
of shale in Deadwood formation (G. M. Schwartz), 525
Report of the Hawke's Bay Earthquake (3rd February, 1931). Review by G. Rittenhouse, 334
Reptile Dicynodon Tigriceps, a mounted skeleton of the mammal-like (E. C. Olson), 1063
Resistance, rock, and peneplain expression (W. S. Cole), 1049
Ressources minèrales de la France d'outre-Mer, les. Review by R. T. Chamberlin, 222
Reverse faults, normal and. Studies for students (J. E. Gill), 1071
Reversed drainage along valley glaciers (L. L. Ray), 302
Reynales formation (J. T. Sanford), 177
Rhodesia, Northern, granites of (F. F. Grout), 284
Southern, granites of (F. F. Grout), 284
Rhombic layer, simple, in packing spheres (L. C. Graton and H. J. Fraser), 791, 828
Rhombohedral packing of spheres (L. C. Graton and H. J. Fraser), 802
Richards, L. W., and G. L. Richards, Jr. Geologic history at a glance. Review by E. C. Olson, 335
Richey, J. E. Guide to the geological model of Ardnamurchan. Review by R. T. Chamberlin, 222
Richmond group of Central Basin, Tenn. (C. W. Wilson), 455, 470, 479
-Salyersville section, physiography of (W. S. Cole), 1054
Ridged and furrowed gravel beds (L. L. Ray), 310
Riebeckite in Front Range granites (M. F. Boos), 1048
Rigidity of interior of earth (J. S. De Lury), 760
Riley, Christopher. *The granite-porphyries of Great Bear Lake, Northwest Territories, Canada*, 497
Rittenhouse, Gordon. Review of Bulletin de la Commission Géologique de Finland, 103, 333
Review of Report of Hawke's Bay Earthquake (3rd February, 1931), 334
River deposition of sediments (H. J. Fraser), 984
Rock foliation, notes on the mechanics of (H. W. Fairbairn), 591
resistance and peneplain expression (W. S. Cole), 1049
Rocks, the compositions of some African granitoid (F. F. Grout), 281
granite pedestal, in the southern Appalachian Piedmont (G. W. Crickmay), 745
igneous, the mineralogical classification of: A comparison of recent proposals (S. J. Shand), 609
wall, some intrusions and their, in the Sierra Nevada (E. B. Mayo), 673
Rocky Mt. Peneplain (W. E. Powers), 193
Roof pendants in Idaho batholith (C. M. Langton), 39, 41

remnant of Sierra Nevada intrusions (E. B. Mayo), 677
Rounding of cobbles (L. L. Ray), 314
Roundness of quartz particles, volume, shape, and (H. Wadell), 250
Row, in packing of spheres, definition of (L. C. Graton and H. J. Fraser), 790
Roy, Chalmer J., and Kirtley F. Mather. A laboratory manual of physical and historical geology. Review by E. L. Tullis, 558
Royal Gorge, Colorado, physiographic history of the Arkansas River valley and the (W. E. Powers), 184
Ruedemann, Rudolf. Cited on Monograptus sp. (J. T. Sanford), 182
Rüger, Ludwig. Die Baltischen Länder (Estland, Lettland und Litauen). Review by R. T. Chamberlin, 446
Ruhrgebiet, Das. By H. Spethmann. Review by A. C. Noé, 109
Rust, George W. *Colloidal primary copper ores at Cornwall mines, southeastern Mo.*, 398
Rutherford, Ralph L., and John A. Allen. Geology of Central Alberta. Review by E. C. Olson, 335

St. John, Orestes. Cited on exploration of Teton Range (F. Fryxell), 384
St. Lawrence fault (F. W. Toppan), 76
formation in Stillwater deep-well records (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 634
St. Louis limestone (S. N. Dicken), 539, 710, 717
St. Peter sandstone, analysis of (H. Wadell), 254; (W. C. Krumbein), 483, 486
Ste Genevieve limestone (S. N. Dicken), 539, 710
Sand, porosity and permeability of (H. J. Fraser), 939, 942, 945, 993
Sandblasting of pebbles (C. K. Wentworth and R. I. Dickey), 97
Sandford, K. S. Paleolithic man and the Nile Valley in Upper and Middle Egypt. Review by E. C. Olson, 557
Sanford, J. T. *The "Clinton" in Western New York*, 169
Sapphire Range, Mont. (C. M. Langton), 27, 29, 31
Saprolite in Appalachian Piedmont (G. W. Crickmay), 745
Sardeson, F. W. Cited on Galena formation (G. M. Kay), 563
Saturation with silica, in classification of igneous rocks (S. J. Shand), 612
Sawatch Range, Colo., migmatites of (J. T. Stark), 1
Scarps, fault, in Pleasant Valley, Nev. (B. M. Page), 694
Schaffer, F. X. Lehrbuch der Geologie, III Teil. Geologische Länderkunde (Regionale Geologie). Review by E. C. Olson, 447
Schlieren gneiss in Idaho batholith (C. M. Langton), 38
Schriever, W., and F. A. Melton. Cited on origin of Carolina elliptical bays (W. F. Prouty), 204
Schultz, C. Bertrand, and A. L. Lugn. Geology and mammalian fauna of the Pleistocene of Nebraska. Review by E. C. Olson, 559
Schwartz, G. M. *Silicification of shale in the Mogul mine*, 524
C. R. Stauffer, and E. P. Burch. *A* reinterpretation of the Stillwater deep-well records, 630
Scott, Harold W. *Some Carboniferous stratigraphy in Montana and northwestern Wyoming*, 1011
Secondary enrichment in Cornwall mines, Mo. (G. W. Rust), 415
foliation (H. W. Fairbairn), 592
Sectional diameter, nominal, of quartz particles (H. Wadell), 258
Sederholm, J. J. On migmatites and associated pre-Cambrian rocks of southwestern Finland, Part III; The Aland Islands. Review by R. Grogan, 784
Cited on migmatites (J. T. Stark), 1, 2
Cited on myrmekite in migmatites (J. T. Stark), 18
Sedimentary particles, analysis of (H. Wadell), 250
Sediments carried by Colorado River (J. H. Maxson and I. Campbell), 734
clastic, experimental study of the porosity and permeability of (H. J. Fraser), 910
indurated, thin-section mechanical analysis of (W. C. Krumbein), 482
of Lindsley Bay area (C. Riley), 502

Seismology, influence of, on theories of interior of earth (J. S. De Lury), 759
Senesland, in erosion cycle (J. H. Maxson and G. H. Anderson), 90
Senility, in erosion cycle (J. H. Maxson and G. H. Anderson), 90
Septum of Sierra Nevada intrusions (E. B. Mayo), 677
Setters quartzite (J. H. Mackin), 357, 372
Shale, silicification of, in the Mogul mine. G. M. Schwartz, 524
Shand, S. J. *The mineralogical classification of igneous rocks*, 609
Shape of grains a factor in porosity and permeability of sediments (H. J. Fraser), 916, 962
volume, and roundness of quartz particles (H. Wadell), 250
Shear surfaces in rock foliation (H. W. Fairbairn), 597
zones in emplacement of Sierra Nevada intrusions (E. B. Mayo), 680
Sherman batholith, heavy minerals in (M. F. Boos), 1034
Shield, African (F. F. Grout), 282
Shrinkage of sediments (H. J. Fraser), 941
Siamo slate in relation to Negaunee iron formation (J. L. Adler), 127, 132
Sickenberg, Otto, and J. Pia. Katalog der in den Österreichischen Sammlungen Befindlichen Säugetierrests des Jungtertiärs Österreichs und der Randgebiete. Review by E. C. Olson, 447
Sierra Nevada batholith, Mother Lode and (E. Cloos), 225
some intrusions and their wall rocks in the (E. B. Mayo), 673
Silica, degree of saturation with, in classification of igneous rocks (S. J. Shand), 612
Silicification of shale in the Mogul mine. (G. M. Schwartz), 524
Sillimanite in Front Range granites (M. F. Boos), 1048
Sills, Gwalior trap, India (M. P. Bajpai), 65
Silurian, the "Clinton" of western New York (J. T. Sanford), 169
rocks of Central Basin, Tenn. (C. W. Wilson), 453, 479
Silver Plume batholith, heavy minerals in (M. F. Boos), 1039
granite (J. T. Stark), 2, 5, 6
Sixteenth International Geological Congress (F. F. Grout and W. W. Longley), 133
Size of grains a factor in porosity and permeability of sediments (H. J. Fraser), 916, 962
Skeleton, mounted, of the mammal-like reptile Dicynodon Tigriceps (E. C. Olson), 1063
Skillet Glacier, Wy. (F. Fryxell), 395
Slichter, C. S. Cited on flow of liquids through packed spheres (L. C. Graton and H. J. Fraser), 873, 889; (H. J. Fraser), 951, 965
Cited on packing of spheres (L. C. Graton and H. J. Fraser), 806, 822,
Slumping (N. H. Stearn), 323
Smith, G. O. Cited on glaciation in Maine (F. W. Toppan), 80
Sobre la presencia de restos de la flora de "glossopteris" en las Sierras Australes de Buenos Aires. By H. Harrington. Review by R. T. Chamberlin, 668
Sodus formation (J. T. Sanford), 180
Soil erosion, in Colorado Plateau Province (R. W. Bailey), 337
zones on Mount Mazama (W. W. Atwood, Jr.), 152, 157
Solution cuesta, a Kentucky (S. N. Dicken), 539
of limestones in Ky. (S. N. Dicken), 711
Solutions, penetration of ore-bearing, in sediments (H. J. Fraser), 1005
Some African granitoid rocks, the compositions of (F. F. Grout), 281
Some Carboniferous stratigraphy in Montana and northwestern Wyoming (H. W. Scott), 1011
Some central Texas wells that filled with water (W. Kramer), 644
Some heavy minerals of the Front Range granites (M. F. Boos), 1033
Some intrusions and their wall rocks in the Sierra Nevada (E. B. Mayo), 673
Some minor features of valley glaciers and valley glaciation (L. L. Ray), 297
Sonoma Range, Nev., faulting in (B. M. Page), 690
Soufrière, La, *nuée ardente* at (R. H. Finch), 545
South Africa, granites of (F. F. Grout), 292

South Carolina, pedestal rocks in (G. W. Crickmay), 745

Southeastern Mo., colloidal primary copper ores at Cornwall mines (G. W. Rust), 398

Southern Appalachian Piedmont, granite pedestal rocks in the (G. W. Crickmay), 745

Rhodesia, granites of (F. F. Grout), 288

Spethmann, Hans. Das Ruhrgebiet. Review by A. C. Noé, 109

Sphalerite in Cornwall mines, Mo. (G. W. Rust), 412

Spheres, systematic packing of,—with particular relation to porosity and permeability (L. C. Graton and H. J. Fraser), 785

Spiral flutes in boulders (J. H. Maxson and I. Campbell), 741

Square layer in packing of spheres (L. C. Graton and H. J. Fraser), 791, 801, 828

Stages, growth, of Allagecrinus americanus Rowley (R. E. Peck), 765

how many glacial, are recorded in New England? (R. F. Flint), 771

Standard size of quartz particles (H. Wadell), 256

Stanton, T. W. *David White*, 778

Stark, J. T. *Migmatites of the Sawatch Range, Colo.*, 1

Stauffer, C. R., E. P. Burch, and G. M. Schwartz. *A reinterpretation of the Stillwater deep-well records*, 630

and George A. Thiel. The limestones and marls of Minn. Review by G. Otto, 331

Stearn, Noel H. *Structure and creep*, 323

Steinbrecher, H., A. Moos, and O. Stutzer. Deutsches Erdöl. Review by E. L. Tullis, 1081

Stewartville-Dubuque problems, Ordovician (G. M. Kay), 561

Stillwater deep-well records, a reinterpretation of the (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 630

Stock, Stove Prairie, heavy minerals in (M. F. Boos), 1034

Tabernash, heavy minerals in (M. F. Boos), 1034

Stocks in vicinity of Idaho batholith, Mont. (C. M. Langton), 43

Stones River group in Central Basin, Tenn. (C. W. Wilson), 457, 478

Stoping in Idaho batholith (C. M. Langton), 43

Story of diamonds, the. By A. C. Austin and M. Mercer. Review by R. T. Chamberlin, 670

Stovall, J. Willis, and C. Stuart Johnston. *Two fossil grizzly bears from the Pleistocene of Oklahoma*, 208

Stove Prairie stock, heavy minerals in (M. F. Boos), 1034

Strain ellipsoid, application of, to foliation (H. W. Fairbairn), 604

Straley, H. W. Review of Physics of the Earth. Part V, Oceanography, 333

Stratification a factor in permeability of sediments (H. J. Fraser), 973

Stratigraphic zones in the Negaunee iron formation of Marquette County, Mich. (J. L. Adler), 113

Stratigraphy of Central Basin, Tenn. (C. W. Wilson), 452

of Chester Valley, Pa. (J. H. Mackin), 365

near Gwalior, India (M. P. Bajpai), 61

of Mont. in vicinity of Idaho batholith (C. M. Langton), 31

of the Stewartville and Dubuque formations (G. M. Kay), 561

Stream erosion in Colorado Plateau (R. W. Bailey), 337

stream fluting and (J. H. Maxson and I. Campbell), 729

valleys, asymmetrical, in Alaska (R. Tuck), 530

Streamline depressions, crescentic (L. L. Ray), 307

Streams in Ky. karst landscape (S. N. Dicken), 726

Striae on Mount Mazama (W. W. Atwood, Jr.), 145, 152

in Portage rocks (B. Willard), 214

Structural features of Lindsley-Bay granite-porphyry (C. Riley), 518

units of Sierra Nevada (E. B. Mayo), 676

Structure of bedding in Negaunee iron formation (J. L. Adler), 123

and creep (N. H. Stearn), 323

influence of, on Payette Canyon, Idaho (A. L. Anderson), 627

of the McCalls Ferry–Quarryville district, Pa. (J. H. Mackin), 362

mother lode (E. Cloos), 233

of the Nashville dome (C. W. Wilson), 457

of northeastern part of Idaho batholith and vicinity, Mont. (C. M. Langton), 45
section in Permian basin, Tex. (W. Kramer), 645
of Western Coal Basin, Ky. (S. N. Dicken), 708

Studi paleontologici e litologici sulla Cirenaici e Tripolitania oriental. Review by E. C. Olson, 558

Studies for students. Normal and reverse faults (J. E. Gill), 1071

Study, experimental, of the porosity and permeability of clastic sediments (H. J. Fraser), 910

Stutzer, O., A. Moos, and H. Steinbrecher. Deutsches Erdöl. Review by E. L. Tullis, 1081

Sudburite, a metamorphic rock near Sudbury, Ont. (R. Thomson), 427

Sudbury, Ont., sudburite, a metamorphic rock near (R. Thomson), 427

Surface forms of the erosion cycle, terminology of (J. H. Maxson and G. H. Anderson), 88

Survey, gravity, at Crosbyton, Tex. (A. J. Hoskinson), 436

Sutton formation, optical analysis of (H. W. Fairbairn), 594

Swartzlow, Carl R. *Ice caves in northern Calif.*, 440

Sweep flutes in boulders (J. H. Maxson and I. Campbell), 738

Syneresis shrinkage cracks in copper ores (G. W. Rust), 405

Systematic packing of spheres—with particular relation to porosity and permeability (L. C. Graton and H. J. Fraser), 785

Tabernash stock, heavy minerals in (M. F. Boos), 1034

Tensleep formation (H. W. Scott), 1013, 1018

Tables, glacial (L. L. Ray), 322

Talkeetna Mountains, Alaska, asymmetrical topography of (R. Tuck), 531

Taylor, F. B., and E. M. Kindle. Cited on stratigraphy of Niagrara Gorge (J. T. Sanford), 171

Tectonics of Sierra Nevada granites (E. B. Mayo), 681

Temperature a factor in permeability of sediments (H. J. Fraser), 959

Temperatures of interior of earth (J. S. De Lury), 760

Terminology of surface forms of the erosion cycle (J. H. Maxson and G. H. Anderson), 88

Terraces in Colorado Plateau (R. W. Bailey), 342
of glacial drainage (L. L. Ray), 303
of upper Arkansas valley (W. E. Powers), 186

Tertiary faunas. By A. Morley Davies. Review by B. L. Clark, 107
lake beds in Mont. in vicinity of Idaho batholith (C. M. Langton), 34
peneplain in northeastern North America (F. W. Toppan), 77, 81
sediments of upper Arkansas valley (W. E. Powers), 186, 195
vulcanism at Mount Mazama (W. W. Atwood, Jr.), 142

Terzaghi, C. Cited on permeability of sands (H. J. Fraser), 952
Cited on porosity of sands (H. J. Fraser), 917

Teton, Grand, National Park of Wyoming, glaciers of the (F. Fryxell), 381

Tetragonal-sphenoidal packing of spheres (L. C. Graton and H. J. Fraser), 803

Texas, gravity survey at Crosbyton (A. J. Hoskinson), 436
wells, some central, that filled with water (W. Kramer), 644

Texture, in classification of igneous rocks (S. J. Shand), 610
as criterion for colloidal origin of ores (G. W. Rust), 403, 425
effect of, on permeability of sediments (H. J. Fraser), 1008
of Negaunee iron formation (J. L. Adler), 120

Thiel, George A., and Clinton R. Stauffer. The limestones and marls of Minnesota. Review by G. Otto, 331

Thin-section mechanical analysis of indurated sediments (W. C. Krumbein), 482

Thomson, Robert. *Sudburite, a metamorphic rock near Sudbury, Ont.*, 427

Three-dimensional arrangement in packing of spheres (L. C. Graton and H. J. Fraser), 792

Throat in packing of spheres (L. C. Graton and H. J. Fraser), 808

-plane in packing of spheres (L. C. Graton and H. J. Fraser), 808
Thrust faulting in Mother Lode District (E. Cloos), 233
Thrusting in the Sierra Nevada intrusions (E. B. Mayo), 685
Tigriceps, Dicynodon, a mounted skeleton of the mammal-like reptile (E. C. Olson), 1063
Till, permeability of (H. J. Fraser), 995
Titanite in Front Range granites (M. F. Boos), 1044
Tobin fault block, Nev. (B. M. Page), 692
Topography, asymmetrical, in high latitudes resulting from alpine glacial erosion (R. Tuck), 530
of Colo. Plateau (R. W. Bailey), 339
of Maine (F. W. Toppan), 80
of the Nashville dome (C. W. Wilson), 452
Toppan, F. W. *The physiography of Maine*, 76
Tourmaline in Front Range granites (M. F. Boos), 1047
Transvaal, granites of (F. F. Grout), 290
Trap, Gwalior, from Gwalior, India (M. P. Bajpai), 61
Trask, P. H. Cited on porosity of sands (H. J. Fraser), 917
Trenton formations in the Mississippi Valley (G. M. Kay), 561
group in Central Basin, Tenn. (C. W. Wilson), 456, 478
Triassic volcanic rocks of Sierra Nevada (E. B. Mayo), 678
Triple glaciers, Wy. (F. Fryxell), 397
Triplecia zone of Galena formation (G. M. Kay), 563
Tripled packing of spheres (L. C. Graton and H. J. Fraser), 815, 825, 836, 866
Tuck, Ralph. *Asymmetrical topography in high latitudes resulting from alpine glacial erosion*, 530
Tullis, E. L. Review of Airways of America, Guidebook No. 1, The United Air Lines. By A. K. Lobeck, 332
Review of Deutsches Erdöl. By A. Moos, H. Steinbrecher, and O. Stutzer, 1081
Review of A laboratory manual of physical and historical geology. By K. F. Mather and C. J. Roy, 558
Turbulence as a factor in stream fluting (J. H. Maxson and I. Campbell), 735
Tuvuthá, island of (J. E. Hoffmeister and H. S. Ladd), 661
Twinned packing of spheres (L. C. Graton and H. J. Fraser), 815, 825, 866
Two fossil grizzly bears from the Pleistocene of Oklahoma (J. W. Stovall and C. S. Johnston), 208
Tyrone limestone, Tenn. (C. W. Wilson), 456, 470
Tyrrell, G. W. Cited on classification of igneous rocks (S. J. Shand), 610

Ulrich, E. O. Cited on Galena formation (G. M. Kay), 562
and R. S. Bassler. Cited on "Clinton" of western N.Y. (J. T. Sanford), 175, 176, 178, 179, 180, 181, 182
Unassorted alluvium, permeability of (H. J. Fraser), 996
Unconformities in alluvium of Colorado Pleateau (R. W. Bailey), 342
Unconsolidated sediments, permeability of (H. J. Fraser), 990
Underthrust faults in vicinity of Idaho batholith, Mont. (C. M. Langton), 31, 43, 49
Undulation flutes in boulders (J. H. Maxson and I. Campbell), 739
Union of South Africa, granites of (F. F. Grout), 292
Unit cell in packing of spheres (L. C. Graton and H. J. Fraser), 792, 797
solid, in packing of spheres, definition of (L. C. Graton and H. J. Fraser), 790
void in packing of spheres (L. C. Graton and H. J. Fraser), 792, 807, 851, 868
U.S. Coast and Geodetic Survey at Crosbyton, Tex. (H. J. Hoskinson), 436
ventifact localities in (C. K. Wentworth and R. I. Dickey), 97
Upland erosion surface (W. S. Cole), 1054
Upper Arkansas River valley and the Royal Gorge, Colorado, physiographic history of the (W. E. Powers), 184
Huronian, Goodrich quartzite (J. L. Adler), 116
Ursus horribilis oklahomaensis (J. W. Stovall and C. S. Johnston), 210

Utah, erosion in Colorado Plateau Province (R. W. Bailey), 337

Valley glaciers and valley glaciation, some minor features of (L. L. Ray), 297
of Grimes Creek in the Payette Canyon, Idaho (A. L. Anderson), 618
the upper Arkansas River, and the Royal Gorge, Colo., physiographic history of (W. E. Powers), 184

Valleys of the Colorado Plateau Province, epicycles of erosion in the (R. W. Bailey), 337

Van Hise, C. R., and C. K. Leith. Cited on origin of ferric oxides in Negaunee iron formation (J. L. Adler), 131

Vaughan, T. W. Cited on coral reefs (J. E. Hoffmeister and H. S. Ladd), 665

Vegetation as erosion control (R. W. Bailey), 348

Ventifact localities in the United States (C. K. Wentworth and R. I. Dickey), 97

Ver Wiebe, Walter A. Historical geology. Review by E. C. Olson, 110

Versluys, J. Cited on capillary movement in packed spheres (L. C. Graton and H. J. Fraser), 908

Vineyard erosion interval (R. F. Flint), 775, 776

Voids in packing of spheres (L. C. Graton and H. J. Fraser), 792, 807, 851, 868

Volcanic rocks of Lindsley Bay area (C. Riley), 502
in Pa. and Md., age of (J. H. Mackin), 371
of Sierra Nevada (E. B. Mayo), 678

Volcano, extinct, glacial history of, Crater Lake National Park (W. W. Atwood, Jr.), 142

Volume, shape, and roundness of quartz particles (H. Wadell), 250

Vulcanism at Mount Mazama (W. W. Atwood, Jr.), 142

Wadell, Hakon. *Volume, shape, and roundness of quartz particles*, 250

Wadia, D. N. The Cambrian-Trias sequence of northwestern Kashmir. Review by R. T. Chamberlin, 671

Waldron shale, Tenn. (C. W. Wilson), 454

Wall rocks, some intrusions and their, in the Sierra Nevada (E. B. Mayo), 673

Warsaw limestone in Ky. (S. N. Dicken), 710, 717

Water, some central Texas wells that filled with (W. Kramer), 644

Watson, T. L. Cited on residual boulders of Appalachian Piedmont (G. W. Crickmay), 754

Wave deposition of sediments (H. J. Fraser), 978

Weathering in arid climates (J. H. Maxson and G. H. Anderson), 92
of granite into pedestals (G. W. Crickmay), 745

Wedge faults in vicinity of Idaho batholith, Mont. (C. M. Langton), 51

Well records, deep-, a reinterpretation of the Stillwater (C. R. Stauffer, E. P. Burch, and G. M. Schwartz), 630

Weller, J. M. Cited on Allagecrinus americanus Rowley (R. A. Peck), 765, 769
Cited on Dripping Spring escarpment, Ky. (S. N. Dicken), 543

Wells, elliptical, in Alaskan glaciers (L. L. Ray), 299
some central Tex., that filled with water (W. Kramer), 644

Wentworth, Chester K., and Robert I. Dickey. *Ventifact localities in the United States*, 97

Werden und Zerfall von Kontinentalschollen, Über. By A. Born. Review by A. C. Noé, 109

Western Coal Basin, Ky., physiography of (S. N. Dicken), 708
N.Y., the "Clinton" in (J. T. Sanford), 169

Weyquosque gravel (R. F. Flint), 774

White, David (T. W. Stanton), 778

White, George W. Review of Outlines of physical geology. By C. R. Longwell, A. Knopf, and R. F. Flint, 328

Wigglesworth, Edward, and J. B. Woodworth. Geography and geology of the region including Cape Cod, the Elizabeth Islands, Nantucket, Marthas Vineyard, No Mans Land and Block Island. Review by Kirk Bryan, 667
Cited on glaciation in New England (R. F. Flint), 772

Willard, Bradford. *Devonian ice in Pa.*, 214
Williams, M. Y. Cited on "Clinton" of western New York (J. T. Sanford), 170, 172, 173
Williamson-Athalia section, physiography of (W. S. Cole), 1054
Willis, Bailey. Cited on terminology of erosion cycle (J. H. Maxson and G. H. Anderson), 90
and Robin Willis. Geologic structures. Review by R. T. Chamberlin, 553
Wilson, Charles W., Jr. *The pre-Chattanooga development of the Nashville dome*, 449
Winchell, A. N. Cited on classification of igneous rocks (S. J. Shand), 609
Wissahickon schist (J. H. Mackin), 356, 359, 372
Wolcott limestone (J. T. Sanford), 178
Woodworth, J. B., and E. Wigglesworth. Geography and geology of the region including Cape Cod, the Elizabeth Islands, Nantucket, Marthas Vineyard, No Mans Land and Block Island (Massachusetts). Review by Kirk Bryan, 667
Cited on glaciation in New England (R. F. Flint), 772
Worthington erosion surface (W. S. Cole), 1054, 1057, 1060
Wright, J. Cited on *Allagecrinus austinii* (R. E. Peck), 765
Wyoming, glaciers of the Grand Teton National Park of (F. Fryxell), 381
northwestern, Mont. and, some Carboniferous stratigraphy in (H. W. Scott). 1011

Xenoliths in Idaho batholith (C. M. Langton), 39, 41
X-ray analysis of foliation in slate (H. W. Fairbairn), 600

Youngland, in erosion cycle (J. H. Maxson and G. H. Anderson), 90
arid, in erosion cycle (J. H. Maxson and G. H. Anderson), 93
Youth, in erosion cycle (J. H. Maxson and G. H. Anderson), 89, 93
Yü, C. C. Lower Carboniferous corals of China. Review by B. Grove, 330

Zircon in Front Range granites (M. F. Boos), 1039
Zones, stratigraphic, in the Negaunee iron formation of Marquette County, Mich. (J. L. Adler), 113
Zygobolba anticostiensis fauna (J. T. Sanford), 181
decora fauna (J. T. Sanford), 181